

HARVARD MEDICAL ALUMNI BULLETIN

Spring, 1964



Internship Day:
A Ticket to the Future

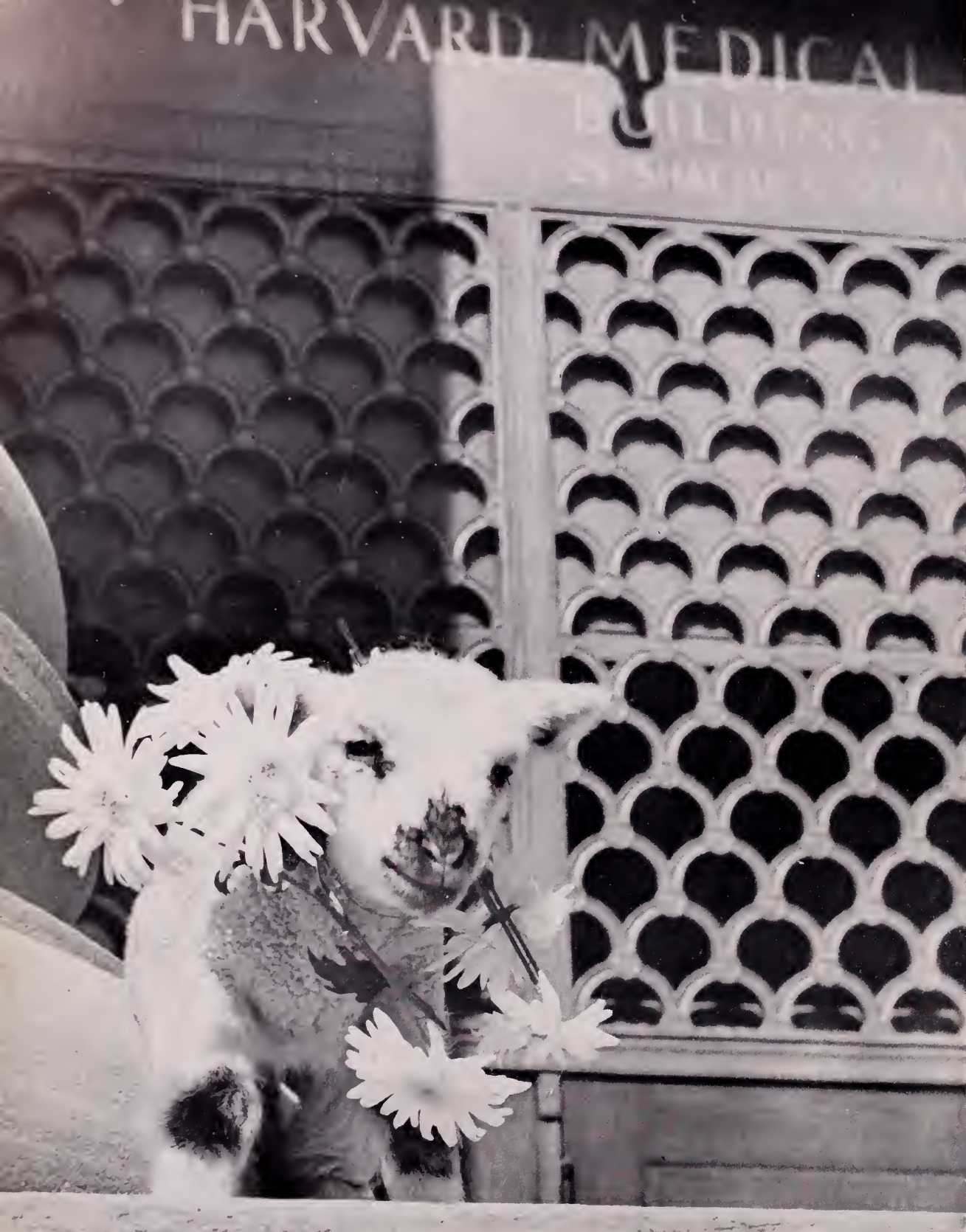


Photo by Herman Goslyn

HMS Spring '64

EDITOR

JOHN R. BROOKS '43B
25 SHATTUCK STREET
BOSTON 15, MASSACHUSETTS

ROBIN A. FISHER
Associate Editor

PATRICIA A. TARTER
Assist. Editor

EDITORIAL BOARD

ERNEST CRAIG '43A
J. ENGLEBERT DUNPHY '33
JOSEPH GARLAND '19
ROLF LIUM '33
JOHN P. MERRILL '42
JOHN C. NEMIAH '43B
CURTIS PROUT '41
GEORGE S. RICHARDSON '46
J. GORDON SCANNELL '40
STANLEY E. SHACKNEY '64
ROBERT S. SHAW '45
PAUL J. DAVIS '63



ASSOCIATION OFFICERS

WILLIAM R. PITTS '33, *President*
HERRMAN L. BLUMGART '21

President-elect

JOHN H. LAWRENCE '30,
Past-President

JOHN P. HUBBARD '31, *Vice-President*
JAMES H. JACKSON '43A, *Secretary*
BRADFORD CANNON '33, *Treasurer*

COUNCILORS

C. DAVENPORT COOK '44
DAVID H. CLEMENT '35
HENRY L. HEYL '33
SYLVESTER B. KELLEY '29
JOHN P. MERRILL '42
THOMAS B. QUIGLEY '33
AUGUSTUS S. ROSE '32
WESLEY W. SPINK '32
JOHN H. TALBOTT '29

LANGDON PARSONS '27
Director of Alumni Relations
DOROTHY MURPHY
Executive Secretary

HARVARD MEDICAL ALUMNI BULLETIN

VOL. 38

SPRING 1964

NO. 4

Cover: Stephen J. Guggenheim '64 and Mary Anne Schoessler Guggenheim '64 took two fateful steps in only a little more than a week. Just married at the end of February, they will take their internships at Cleveland Metropolitan General Hospital. Photos by Dan Bernstein.

Letters to the Editor	2
Along the Perimeter	4
Inside HMS: From the Addict's Intimate Journal . .	12
Letter from an Alumnus	13
Fifty Years for Robert B. Brigham Hospital	14
Outside HMS: Part III of the National Boards, or Wednesday Afternoon at the Movies. An Expose .	16
Editorial: What Shall I Tell My Son — Or Daughter? .	18
A Preview of the New Curriculum for the Clinical Years at Harvard	20
The Amazing Life of Edwin H. Allen '89	22
Socialized Medicine a Double-edged Sword?	28
"And for Every Nation There is an Appointed Time" .	34
Internship Day — 1964	40
James Bourne Ayer	44
Honors	46
Alumni Notes	47
Obituaries	57
Harvard Medical Alumni Day Program	58
Harvard Medical Alumni Council Candidates	59

Advertising: Milton C. Paige, Jr., 8 Fenway

Boston 15, Mass., CO 6-7510

25 MAY 1964

LETTERS

The periphery? Certainly not!

To the Editor:

I was interested in John Knowles's account of the antics of his animalistic — or should I say beastly? — staff. This letter is not about what *he* had to say; it *is* about the heading, "Around the Periphery." Evidently this is to be the general title for a series of reports from the School's hospitals. The hospital is the locus of the sick man. The periphery? Certainly not. The hospital is indeed the center, the lodestar, for all physicians and for all scientists working in medical and related fields, for all medical education. Everything else in medicine and medical science is peripheral to the sick man.

This matter seems to me worth laboring, for there is in truth a long-standing belief, often expressed by some of those who inhabit the quadrangle, that they, and they alone, are at the center: they are the basic scientists and all else is from "the periphery," or so they believe.

The tiresome debate, basic science vs. applied, has little interest even though it does cover an important fact, one not easily disposed of by saying there is merely good science and bad science, as some have tried to do. The thoughtful will agree that there is science which is concerned with the discovery and establishment of new concepts (basic science, if you will), and all else is applied science, whether this is to be found in a laboratory of biochemistry or in the treatment of a sick man. New concepts are often derived from disease and established by disease and its response to therapy. Thus, the physiology of the endocrine glands, for example.

I once planned and carried out with the help of 20 of the busiest and most distinguished scientists in America (including three Nobel Laureates) a series of Lowell Lectures to show

how disease had advanced "basic" science. Apparently the message never got to the man who dreamed up the phrase "Around the Periphery." The hospital world is indeed the Harvard Medical School just as the Quadrangle is, too, the Harvard Medical School. It may be worth observing that the Medical School has had six Nobel Laureates, and, interestingly enough, they *all* came from the hospital world, "basic" scientists although some of the men were, John Enders and Fritz Lipmann, for example. These Nobel prizes were nicely distributed among the Boston City Hospital, the Peter Bent Brigham Hospital, the Children's Hospital, the Huntington Memorial Hospital, and the Massachusetts General Hospital.

If I had my way, President Lowell's discerning comment in his inaugural address of 55 years ago would be pondered by all in the Medical School:

Productive scholarship is the shyest of all flowers. It cometh not with observation, may not bloom even under the most careful nurture. American universities must do their utmost to cultivate it; by planting the best seed, letting the sun shine upon it, and taking care that in our land of rank growth it is not choked by the thorns of administrative routine.

Productive scholarship of the most original and creative kind blooms as significantly in the hospital as elsewhere. We do not inhabit a pluriverse where there is division between central and peripheral worlds: the Harvard Medical School is a *universe* and may it remain so. The eye is not peripheral to the ear; they are parts of the same healthy body.

HENRY K. BEECHER '32

(*Webster's dictionary defines "periphery" as "the circumference or perimeter of a circle, ellipse, or other*

closed curvilinear figure." *Periphery is a geometrical term, Dr. Beecher, not one which implies relative importance.* Ed.)

"Free the spirit of each mind . . ."

To the Editor:

This Christmas my brother sent me a copy of a recent address by Charles Habib Malik on "Developing Leadership in New Countries," which inspired me to write the following lines (with Holly's help). You might want them for the *Bulletin*:

Behold the international development expert
Surveying the underdeveloped world with compassion
From the top of a great monument to industrial technology
Built of truths dug out by man's capricious curiosity,
Rising on the unsteady foundation of free human strivings
And united by the unstable bond of man's humanity to man.

Can he help his neighbors seek to free their minds?
Or will his genie of abundance wildly bring
Abundance merely of the hollow shells of men
Sinking in the quicksands of their fatalism
Where folklore treads on tender curious shoots of thought
And crowding causes strife which tramples freedom more?

Unless we free the spirit of each mind,
Disaster haunts abundance for mankind.

I just read your editorial in the Christmas *Harvard Medical Alumni Bulletin*, which gave me an impulse to send you these lines, written in some of those precious hours which I

have been able to steal away from each day's job and devote to trying to get a better perspective. The work (in Lahore, West Pakistan) goes on with exciting progress in spite of depressing frustrations. I think we'll have something to show in family limitation that the illiterate villagers are interested in and will practice, if properly approached. Now the difficult job is to expand this demonstration to a nationwide program and to make predictions about the percent of reduction in birthrate to be expected from a given investment, etc., etc. We are using intra-uterine contraceptive "coils" with remarkable success. A method that really works and is easy, like the coil, sells itself even to illiterate villagers.

JOHN C. COBB '48
Lahore, West Pakistan

To the Editor:

May the wife of an HMS '58 applaud your editorial on freedom of thought.

MRS. JOHN A. STANLEY
Van Nuys, California

The Keynesian Legend

To the Editor:

Both Dr. Berry and Dr. Donaldson might profit from reading two recent dissenting books on Keynes, both from respectable, unimpeachable sources: *Keynesianism — Retrospect and Prospect*. A critical re-statement, W. H. Hutt, reviewed in *The New York Times*, Sept. 1, 1963; *The Failure of the New Economics*, An analysis of the Keynesian Fallacies, Henry Hazlitt, reviewed in *The New York Times*, June 28, 1959.

Louis Hacker, who teaches economics at Columbia, refers to the "voluminous pietistic literature that has originated largely in America; the Keynesian legend has become Holy Writ.

(MRS.) L. C. WILLIAMS
Milton, Mass.

Doctors Write Fine Copy

To the Editor:

I have enjoyed the *Medical Alumni Bulletin* so much since you took charge that I am moved to write you and compliment you on the fine publication that you edit. The articles are varied, and all are interesting and informative. Some time ago the editor of the *Harvard Alumni Bulletin* enclosed a blank asking for suggestions to improve it, and I answered saying, make it like the *Medical Alumni Bulletin*. In the past Boston doctors wrote well, and the *Bulletin* shows that they still can. How you are able to collect such fine copy is beyond my understanding, but please keep up the good work.

NATHANIEL W. FAXON '05

To the Editor:

Last evening I read the "Caring for the Patient," the 1963 George W. Gay lecture by Herrman L. Blumgart, M.D. I found it to be such a fascinating article and an excellent reminder to some of us who have been practicing for quite a few years as to what our place is in medicine.

The *Bulletin* has certainly become a most choice and looked-for bit of reading. We are so deluged with material to be read that I find the *Bulletin* takes precedence.


DAVID RODNEY HADDEN '31
Berkeley, California

To the Editor:

May I reiterate my admiration for the *Bulletin* under its present editors. It seems to improve with age, like vintage wine.

Dr. Means did a fine job in his article on Dr. Walter Bauer. Dr. Harwood's personal report on his family disaster is remarkable. Being interested in Boston medical history, I greatly enjoyed Dr. Gifford's story about "Dr. Warren's Mastodon."

GEORGE H. JACOBSEN
Editor, *The News*,
Massachusetts General
Hospital



Service at Any Distance
•
Within the Means of All
•
Serving All Religions
•

Main Office
495 Commonwealth Ave.
Boston KE 6-4110

PROTEIN BOUND IODINE
BUTANOL EXT. IODINE
PAPER ELECTROPHORESIS
CATECHOL-AMINES
VANILLYL MANDELIC ACID
(V. M. A.)
TRIGLYCERIDES
STEROID & CLINICAL
CHEMISTRY
◆
BOSTON MEDICAL
LABORATORY

Norbert Benotti Joseph Benotti
Directors

19 Bay State Road, Boston 15, Mass.
CO 6-3402



Photos by Dan Bernstein



Above, Dr. Berry and Oliver Cope '28; right, Francis M. Rackemann '12; and below, Chester M. Jones '19 and Seppo E. Rappo '64.



ALONG

THE PERIMETER

Alumni Council

Senior Dinner

Every spring American medicine reserves a Monday in early March for its rites of professional initiation, the announcement of internship appointments. This year, for the first time, the Alumni Council decided to hold its own commemorative dinner to welcome the fourth year class into the Alumni fold. Held on March 9, the same day that the class received their slips in the faculty room and the Council gathered for its annual meeting, the celebration collected the fourth year class, their wives, councilors, former councilors, and faculty together in Vanderbilt for cocktails, a meal, and a few non-didactic remarks by Drs. Parsons, Berry, Pitts, Hubbard, Glaser, and Quigley. As Dr. Quigley's talk (which follows) so aptly indicates, the evening mixed the younger with the older, the serious with the unserious, and promises to become an annual event.

* * *

As the penultimate speaker, I suggest I am the hatchet man. Certainly the time has come for a little plain Yankee truth. It must have dawned on you now, after 3½ years, that you are about to become members in the most satisfactorily self-perpetuating fraud the civilized world has ever known. By this, I mean that it makes



Above: (l. to r.) Langdon Parsons '27, Maxwell Finland '26, Chester M. Jones '19, and Howard Ulfelder '36; right, Bradford Cannon '33, his wife, and Mrs. Herrman Blumgart.



no difference whether the faculty has any competence whatever in communicating or teaching. Somewhere in the dim past, by some happy chance, a group of superior young men were graduated from the Harvard Medical School and achieved high-places in the profession; others, who emulate them, follow, and this has been going on to the present time. But the faculty does worry about this, and their worry takes the form, every few years, of a kind of spasm, called 'rearrangement of the curriculum.'

Now that you are about to become members of the Harvard Medical School's Alumni Association it is my duty to inform you that you are going to pay for this privilege: the delights of commitment in the support of your class fund, and the Alumni fund, of the Program for Harvard Medicine, and now, currently and ever more fashionable, the endowed professorship. Alumni get letters every week about these professorships. I read you the latest I have received: "As a pupil of the late Fester Lurch you are invited to contribute to an endowment to establish a professorship in Arctic helminthology." Dear old Lurch! Many here will recall his rich seminars on the private domestication of cold worms.

You are certain to be leaders in your communities;

your duties will extend beyond the Harvard Medical School. You will be expected to contribute generously to such organizations as, the Home for Little Wanderers, Middle Sized Wanderers, the Home for Big Wanderers, and so on. But you *will* contribute, and you will do this happily and generously, as all who have gone before you have done. And now you must reasonably ask, what do they do with the money? I will tell you what they do. They use it to make the faculty happy. And what happens when the faculty is happy? They upset things.

Not too long ago, good, honest, hard working doctors were giving transfusions to patients with pernicious anemia, and signing their death certificates. Then some of these doctors got the crazy idea of feeding these people liver, and the practice of medicine has not been the same. Moreover, only a little while ago, a man who had tossed aside a very promising career in English literature to dabble around in bacteriology, figured out a way to grow certain viruses. The result — no more polio. This has been a staggering blow to the fine specialty of orthopedics!

So now you know that the Harvard Medical School is a very peculiar place. We can speak of this within the family, but we won't tell anybody outside.



Dr. Kraye

Dr. Kraye Named to New Chair

Otto Kraye, who is internationally acclaimed for his studies of man's autonomic nervous system and how its action is modified by drugs, has become the first Gustavus Adolphus Pfeiffer Professor of Pharmacology. Formerly the Charles Wilder Professor of Pharmacology, Dr. Kraye has been appointed to the last of three titled chairs established by the University with a \$1,500,000 gift from the Gustavus and Louise Pfeiffer Research Foundation. Its title honors the founder of what became the Warner-Lambert Pharmaceutical Company and of the Pfeiffer College, Mineshimer, North Carolina, and is one of 18 professorships to be created through the efforts of the Program for Harvard Medicine.

Through his research Dr. Kraye has maintained a continuing interest in the heart's function and the drugs that affect it. Noting that the use of reserpine led to an increase in the heart rate, he and his collaborators have been able to demonstrate that reserpine can deplete the heart's store of norepinephrine, the vital nerve chemical secreted by the adrenals, body nerve endings, and heart, he has helped clinicians explain why patients under treatment with reserpine are not good surgical risks. This finding of Dr. Kraye's was the first indication that a drug had been found that would liberate norepinephrine from the body stores.

Also concerned with the academic aspects of pharmacology, Dr. Kraye has recently reorganized the undergraduate courses in pharmacology to provide a more

comprehensive physiological and biochemical understanding of therapeutic action.

Dr. Kraye came to the Medical School as lecturer in pharmacology in 1936, became head of that department in 1939, and was named Charles Wilder Professor of Pharmacology in 1954. In 1961, he received the Torald Sollman Award in Pharmacology of the American Society for Pharmacology and Experimental Therapeutics.



Dr. Barr '26

Dr. Barr Receives Permanent Title

Joseph S. Barr has been given a "full time" appointment as the John B. and Buckminster Brown Professor of Orthopedic Surgery. Although he has held this chair since 1947, it has only been on a "part-time" basis, with the word "clinical" included in his title.

Originally a full time appointment, the professorship became a temporary one in 1931 because of inadequate endowment. Not until this year, when the University was able to establish the Edith M. Ashley Fund for a full time professorship with a gift from the Permanent Charity Fund, Inc., was the title restored to its intended status. With Dr. Barr's appointment, both of the school's departments in the field are on a full time basis.

Dr. Brown and his son were both pioneers in changing their specialty from that of "the strap and buckle" into one of orthopedic surgery. The father founded the

Boston Orthopedic Institution in 1833, and in 1861 his son opened what is known as "the first ward given to orthopedics in America" at the Good Samaritan Hospital. Upon his death in 1891, Buckminster Brown left Harvard a fund to establish a chair in his field.

Dr. Barr, also a pioneer in orthopedics, was first to recognize that the major cause of back pain and sciatica involved the intervertebral disc. He is also interested in areas as far-flung as the activity of the pancreas and the flow of blood through arterioles and capillaries.



Dr. Kuffler

Stephen W. Kuffler First Robert Winthrop Professor of Neurophysiology

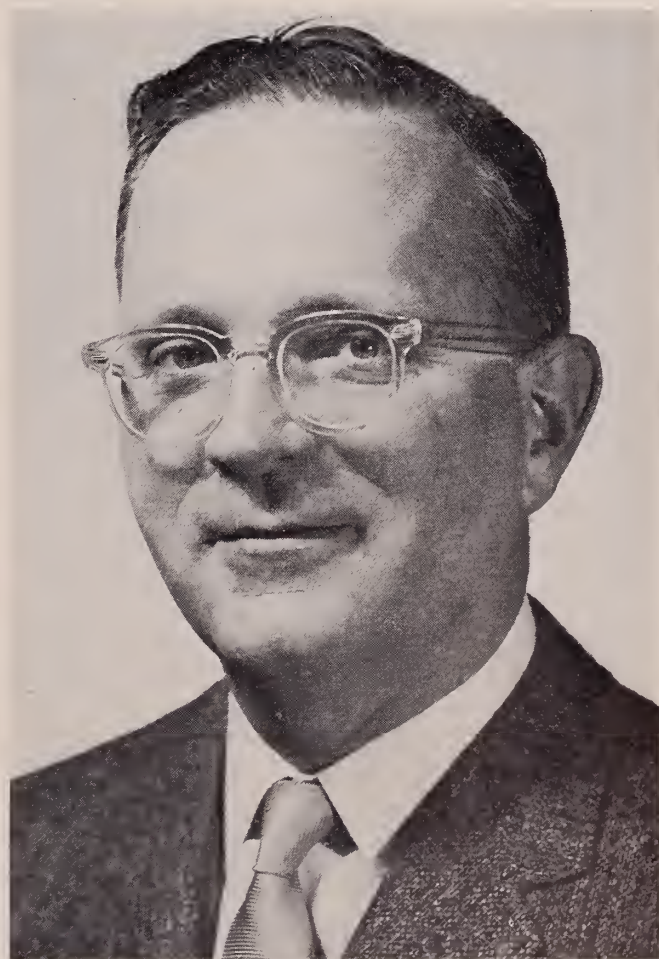
One of the foremost investigators of the nervous system, Stephen W. Kuffler, has been appointed the first Robert Winthrop Professor of Neurophysiology and Neuropharmacology.

The new chair is named in honor of its donor, Mr. Robert Winthrop, a senior partner in the New York investment firm of Wood, Struthers and Winthrop. Mr. Winthrop graduated from Harvard College in 1926, and served for a time as a member of the executive committee of the Program for Harvard Medicine.

Dr. Kuffler, who became professor of neurophysiology and neuropharmacology in 1959, has directed research in the use of micro-electric techniques to study

single nerve cells in the visual cortex of the brains of animals. This research has involved the mechanisms of neuromuscular junction that result in contraction and the detailed analyses of the chemical processes occurring at the synapses where the nerve impulse is transmitted from one cell to another. In 1957 Dr. Kuffler made the first measurement on the number of light quanta needed for excitation of the retina in cats.

Beyond his search to learn more about what nerve cells do, Dr. Kuffler now seeks to understand how the brain itself functions, and how it goes about its business of handling complex data. For this study extremely fine electric probes are delicately inserted directly into the individual nerve cells of the visual cortex to record the cells' activity. He has learned that individual cells react to the stimulus of light shone into the eyes of an animal by discharging impulses, and that the magnitude of the impulses vary with the type of stimulus.



Dr. Villee

Claude A. Villee, Jr., Appointed First Andelot Professor of Biological Chemistry

An outstanding scholar in the field of human reproduction and reproduction biology, Dr. Claude A. Villee,

Jr., has been appointed the first Andelot Professor of Biological Chemistry. Dr. Vilée is associate professor of biological chemistry and research associate at the Boston Lying-in Hospital, where he works closely with members of the department of obstetrics and gynecology. He is involved in an extensive research program in the field of human reproduction; this program is focussed on embryonic and placental tissues in an effort to understand the underlying mechanisms in the transformation of cells both prior to and following birth. Part of this study has also been conducted at the Karolinska Institute Hospital in Stockholm, Sweden.

In addition to his research, Dr. Vilée is active in the preclinical, clinical, and postdoctoral teaching programs at the Medical School and is chairman of the board of tutors. He is author of the popular college biology textbook, *Biology: The Human Approach*.

The Andelot chair has been established in the faculty of medicine with a gift of \$500,000 from Lamont duPont Copeland, President of E. I. duPont de Nemours and Company, and honors the name of Mr. Copeland's mother, Louisa d'Andelot Copeland. This is the 18th chair to have been established by the University at the Harvard Medical School under the \$58 million Program for Harvard Medicine.

Dr. Talbot Becomes Charles Wilder Professor

Nathan B. Talbot, a well known investigator in pediatric research, has become the Charles Wilder Professor of Pediatrics. Formerly professor of pediatrics, Dr. Talbot has focussed largely on the quantitative aspects of nutrition, metabolism and endocrinology. His major text, *Functional Endocrinology from Birth through Adolescence*, demonstrates that disturbances involving the endocrine system as an indicator of stability in normal body states occur with much greater frequency in clinical work than do the more dramatic diseases caused by a primary disorder of the endocrine system.

Dr. Talbot is the sixth incumbent of the Charles H. Wilder Professorship. Last held by Otto Krayner, the chair has been held successively by: Milton J. Rosenau, Hans Zinsser, John E. Gordon, and J. Howard Mueller.

Promotions and Appointments

STANDISH C. HARTMAN, assistant professor of biological chemistry

WILLIAM E. HARTNETT, assistant professor of mathematical biology

SUSUMU ITO, assistant professor of anatomy

CHARLES C. RICHARDSON, assistant professor of biological chemistry

HERBERT S. TALBOT, assistant clinical professor of surgery

HERMAN R. TYLER, assistant professor of neurology

WILLIAM BERENBERG, associate clinical professor of pediatrics (at the Children's Hospital Medical Center)

MELVIN P. OSBORNE, '42, associate clinical professor of surgery (at the Faulkner Hospital)

Fifteen members of the teaching staff of the Harvard Medical School have been promoted to faculty rank:

DAVID T. ARMSTRONG, associate in anatomy in the School of Dental Medicine

RICHARD D. BERLIN, '59, associate in physiology

JOHN L. BETHUNE, associate in biological chemistry (at the Peter Bent Brigham Hospital)

THEODORE COLTON, associate in preventive medicine

ROBERT A. DARROW, associate in biological chemistry (at the Massachusetts General Hospital)

MYRON B. LAVER, associate in anesthesia (at the Massachusetts General Hospital)

HENRY P. PAULUS, associate in biological chemistry

WILLIAM J. REDDY, associate in biological chemistry (at the Peter Bent Brigham Hospital)

FRED S. ROSEN, associate in pediatrics (at the Children's Hospital)

DAVID SHAPIRO, associate in psychology

ROBERT G. SPIRO, associate in biological chemistry (at the Peter Bent Brigham Hospital)

MYRON STEIN, associate in medicine

HELEN H. GLASER, clinical associate in pediatrics (at the Children's Hospital Medical Center)

SIDNEY LEVIN, clinical associate in psychiatry

JOHN M. MAC KENZIE, clinical associate in psychiatry

The Million Dollar Wings

Robinson Jeffers once wrote: "Lend me the stone strength of the past and I will lend you the wings of the future, for I have them." Now the Medical School has wings to fly towards 1973, because in that year a bequest, now valued at \$1.35 million, will become available to establish two generously endowed professorships at the Medical School. These funds are provided by the will of Mr. Fred Y. Presley of New York City, a pioneer in the field of mutual funds, and one-time president of the National Investors Corporation, New York.

"Mr. Presley was keenly interested in basic medical research and its teaching," said Dr. Berry, "and he related this interest to his own research-oriented approach to investments." He considered his bequest would become an investment in better health for future generations and gave the same careful thought and attention to setting-up the trust fund that he devoted to his own financial affairs. Before he determined where to leave his estate, he made an extensive study of the nation's medical schools. In Dr. Berry's words, "he carefully reviewed the goals of the Program for Harvard Medicine, and understood clearly why a school requires a firm capital position in order to ensure that its faculty will have the greatest possible support." It was his hope that by 1973 each professorship would be funded at about \$1 million.



Three generations attended the dedication ceremony of the Walter B. Cannon seminar room. Mrs. Walter B. Cannon, wife of the late Dr. Cannon, and (right) Dr. Bradford Cannon '33, son, and (left) Walter B. Cannon, grandson, who will become a graduate of the class of '68. Mr. Pusey formally dedicated the room, and the ceremony was enjoyed by many friends and relatives of the late Dr. Cannon.

Mr. Presley died in November, 1963, and his will stipulates that a trust be created and held by a New York trust company for ten years; the income from the trust is to be added to the principal, and at the end of that time both amounts are to be paid to Harvard University. The School will then be free to select the areas of medicine in which the professorships will be established, and they will be named in honor of Mr. Presley's late mother, Maude Presley, and his late sister, Lillian.

Mr. Presley was born in Boothbay Harbor, Maine. He graduated in 1915 from McGill University and then attended Harvard Business School. In 1928 he moved from Boston to New York, where he created four investment trusts which later merged to become the National Investors Corporation. It was Mr. Presley's theory, unique at the time, that the key to successful investment was not to buy low and sell high, but to invest only in companies with a high rate of growth predicted after thorough research of their potential. It is felt by Dr. Berry that this principle is now being applied through the execution of his bequest.

Computers and the Library

For those concerned about keeping up with today's flood of medical literature, the effort is becoming more and more difficult, if not impossible. Therefore doctors and research investigators find the concept of push-button libraries, and the use of computers ever more appealing.

The Harvard Medical School Library is keeping pace with current trends in several different ways. One of these ways involves the dissemination of information

from the National Library of Medicine to libraries throughout the country, by use of an electronic computer system known as MEDLARS (Medical Literature Analysis and Retrieval System). The Harvard Medical School Library will become a test library for this.

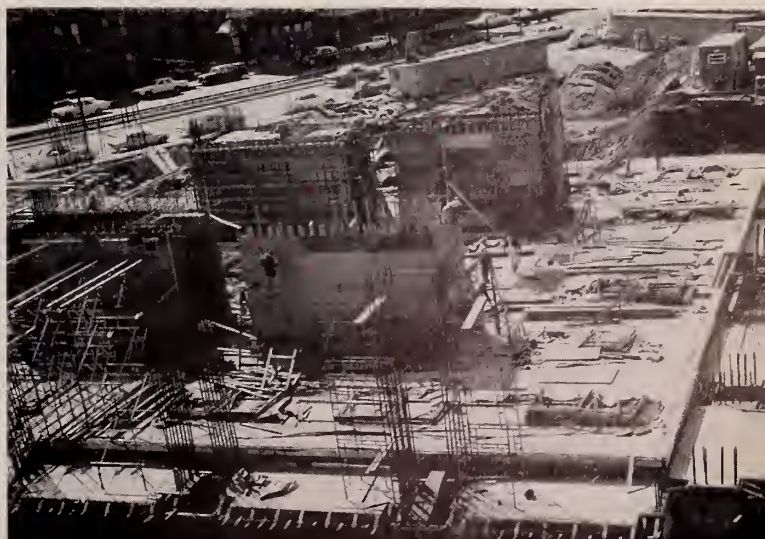
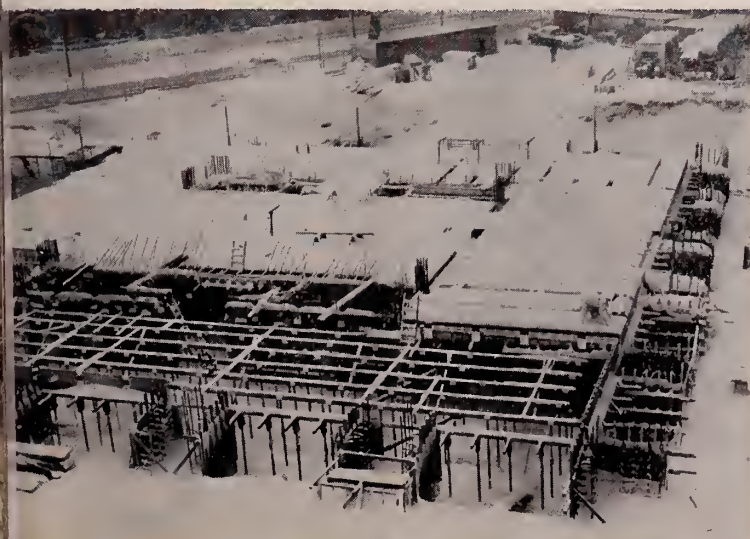
Another project, which has been under way since March, also using electronic machines, provides for converting serials records to punched cards. It makes possible the mechanization of several internal processes, such as the daily recording of incoming periodical issues and the claiming of issues not received on time. In due course, lists of journals and journal holdings can be printed automatically. Already some 30,000 existing records of different periodical titles in the Medical School library and the Boston Medical Library have been photographed. When these records have been worked over and the IBM cards punched, it will be possible to manipulate the recorded information in a number of different ways for the ultimate benefit of the user.

A second project involves the medical libraries of Columbia and Yale Universities as well as our own. The eventual purpose is to use a computer (to be installed at Yale University) which will deliver bibliographic information from any of the three libraries about the books and periodicals published since 1960. Work on this project began last fall, when cataloguing procedures were altered to provide machine-readable input information.

During the first part of a two-year phase for this work, the information will simply be allowed to accumulate. Phase two, planned to begin in 1965, will pro-

What a difference . . .

. . . a month makes



vide for the retrieval of the bibliographic information that has accumulated. Phase one is being supported with a grant of \$61,755 from the National Science Foundation.

Since every project of this sort must have its acronym, the Harvard library staff has come up with HYCCUP (Harvard-Yale-Columbia Catalog Utilization Project), but colleagues at Columbia and Yale are less than enthusiastic about a label that suggests more wind than substance.

RALPH T. ESTERQUEST
Librarian

The Massachusetts General Plans a New Building

Over the next three to five years, the Massachusetts General Hospital hopes to complete a new \$8,713,000 surgical and special services building. The plans, which were announced in mid-February, will accommodate what the hospital presently considers its most crucial spatial needs: centralized and expanded surgical facilities; roomier and more modern chemistry, bacteriology, and blood bank clinical laboratories; a larger area for diagnostic radiology and the modern, heavy machinery of radiation therapy; more kitchens and dietary facilities; and centralized admitting, discharge, and general administrative area.

The largest ever constructed by the hospital — it is almost ten times as large as the hospital's original building, the Bulfinch — the structure will be located in the

core area of the hospital, adjacent on three sides to the White Building, Baker Memorial, and Bulfinch Building.

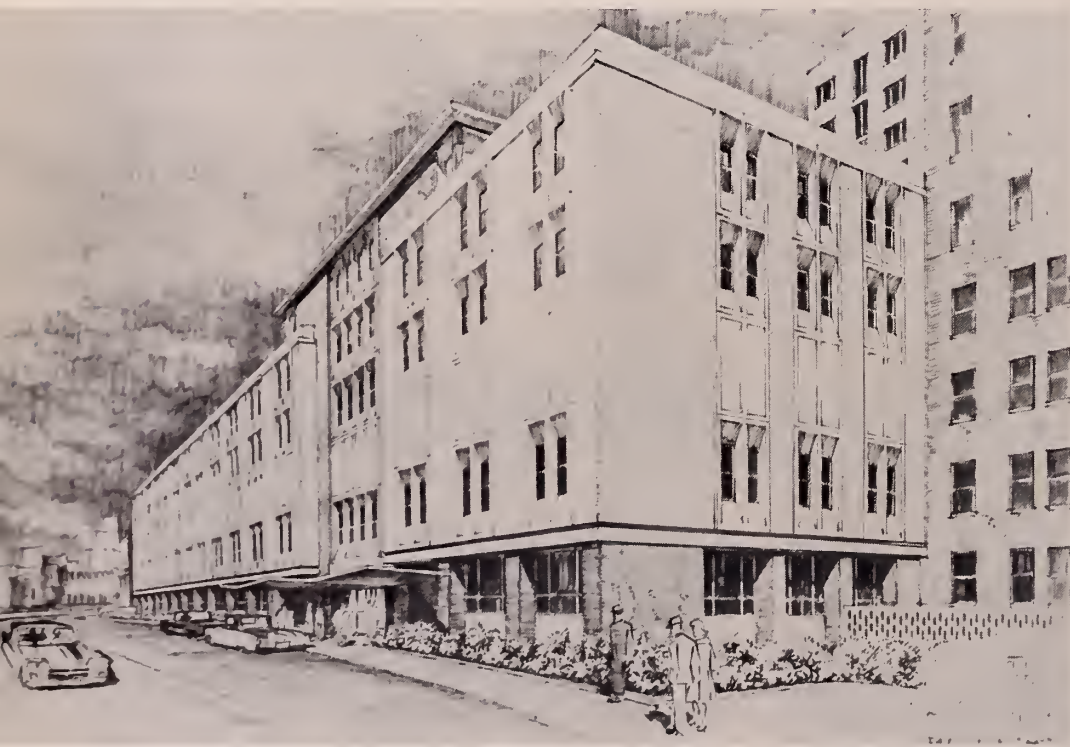
In regard to its financing, John E. Lawrence, who has recently become the new chairman of the hospital's board of trustees, stated: "We have never undertaken a capital expenditure of this magnitude without having the necessary funds. At the moment there is at hand or in sight \$4,700,000. . . . The tower of the proposed building will be extra and could be built later."

Program Notes

Alumni are responding to the appeal of the Program for Harvard Medicine with their customary enthusiasm and loyalty to the Medical School. As of March 20, they had contributed \$1,188,094 toward the \$3.5 million Alumni goal. As this total represents only about 650 gifts, it is a particularly impressive demonstration of support for the objectives of the Program.

Committees have been formed in 22 areas, comprising mainly key cities throughout the country, and additional Alumni organizations are being formed in other areas as rapidly as possible. Some 330 Alumni have joined the Program as volunteers to help raise funds under the direction of Claude E. Forkner '26, the National Alumni Chairman. This number will grow substantially in the months ahead as the Alumni accelerate the pace of their activity. Eventually, every Alumnus will be given an opportunity to contribute to this vital effort to strengthen the Faculty.

BAILEY MASON
Public Relations Director, Program for Harvard Medicine



The new Massachusetts General building will be ten times the size of the hospital's original structure and will cost \$8,713,000.



Dr. Tenney, Jr., '25

The Dr. Benjamin Tenney Day

Professional stature is measured by many tests, and one of the modern yardsticks is the way a man retires. When Benjamin Tenney, Jr., '25, stepped down as director of gynecology at the Boston City Hospital last fall, his department felt that their verbal appreciation would merely embarrass him, and they decided to express it in the form he would most enjoy, a day of teaching for the residents, former residents and staff of his service.

Dr. Tenney, who is also a Naval Reserve Rear Admiral, a co-author with Brian Little of the well-known textbook, *Clinical Obstetrics*, W. B. Saunders Co., 1961, and a prominent researcher on hypertension and infection in pregnancy, as well as placental pathology, has served in his post at the Boston City Hospital for ten years.

The day, which was programmed by one of his earliest residents, Bernard Santamarina, began with ward rounds and a clinicopathological conference which was presented by Drs. Tenney and Hazel M. Gore, associate in pathology. Following lunch, six seminars were presented by those who had worked closely with him on the service or in his department: Drs. Shawn O'Sullivan, instructor in medicine, Tufts; George Mitchell, professor of obstetrics and gynecology, Tufts; William Maloney, clinical professor of medicine, Boston University; Edward H. Kass, associate professor of bacteriology and immunology; James Whelton, instructor of obstetrics and gynecology, Tufts; and A. Brian Little, who has succeeded Dr.

Tenney at his post. Dr. Daniel J. McSweeney, professor of obstetrics and gynecology at Tufts, presided.

The program wound up with what was to be "a small dinner at the Harvard Club," but which in reality grew to an intimate gathering of 200, after almost all those invited accepted and even more asked to come. Dr. Daniel McSweeney, surgeon-in-chief of the service, presented Dr. Tenney a silver tray on behalf of the hospital staff, and his lifelong friend Langdon Parsons '27 gave an address that summed up the man and the occasion.

McLean's Rehabilitation Center

The new McLean Hospital Rehabilitation Center at Belmont, Mass., is now in full operation for some 200 patients daily. The concept behind the construction of this unusual and attractive building is to centralize some of the existing facilities in the hospital, and to thereby make it possible to treat patients through a more integrated approach. It is also the hope of Dr. Francis deMarneffe, director of McLean's, that the center will "bring the hospital closer to the patients living in the community and the community closer to the patients living in the hospital."

The structure has been built in a series of single-story, modular units, arranged to create landscaped courts. There are six major areas consisting of an occupational therapy room, library, music room, civic center, day-care center, and educational department, all centered around and easily accessible to the "village green."

The "village green" is much like a tiny indoor shopping center and has a coffee shop, beauty shop, barber shop, post office, laundromat, and store. The community atmosphere created by this center provides a valuable opportunity for convalescing patients to either relearn certain elementary activities or help them to learn new social and vocational skills.

At the dedicatory dinner last October, Dr. Berry contrasted McLean's new center with those mental hospitals where there are "all too often new facilities being dedicated to the obsolete aim of custodial care." This center "affords new opportunities for restoring the mentally ill to fruitful lives, for probing the unknown and for training tomorrow's physicians and research workers."

Dr. Dana L. Farnsworth, Henry K. Oliver Professor of Hygiene and director of University Health Services, Harvard University, observed in his speech at the dinner that we should not think of mental hospitals solely as places to send patients for treatment and protection, but instead, we should think of the hospitals as educational institutions concerned with aspects of living which no other of our agencies or institutions have the resources or courage to undertake. Dr. Farnsworth said:

The greatest educational opportunity facing the mental hospital today is teaching all of us how to care for each other in ways that will make the inadequate adaptation that mental illness represents more and more unnecessary.



Inside HMS: From the Addict's Intimate Journal

The other day, out of the blue, the old passion was upon me, teasing, cajoling, pulling, higgledy-piggledy, at my very nerves. I don't know what brought it on. All the foregoing night I had lain abed insomniac. Then there was the morning sun on Storow Drive, rasping at my raw optic fundi; and the traffic — well, to be honest, it was nothing extraordinary — just the usual donnybrook, a sort of motorized rape of the Sabines. And (here again, nothing unusual) I was ten minutes late for my third year surgery course at the MGH. So, to be frank, I can't account for this sudden, appalling hiatus in the diaphragm of my good intentions, as it were.

Insouciantly, I drew my car alongside my favorite No Parking sign and stopped. It was Monday, and the Boston fuzz, I well knew, ticket cars only on Tuesdays and Fridays under this particular escutcheon. The rest of the time, I assume, they devote themselves to the main stream of urban crime.

If I seem not to come boldly to the crux of my narrative, this is only because it is all too painful, too mortifying, really. Knowing, already, what I was about to do, I pulled the collar of my trench coat up about my face and, lowering my gaze, stole into the White Building through the back door. It was awful. Like a kleptomaniac in a five and ten, like a voyeur with a new pair of binoculars, my pace involuntarily quickening, I made my inexorable way to the candy shop. (Oh, those dear, innocent, little ladies in their spotless, conjunctiva-colored smocks.) But I knew that there would be no turning back. Already, I could feel my nicotinic receptors discharging in anticipation, and tiny beads of sweat were forming, forming, on my brow. I breezed through the main lobby. My feet on the carpet felt like little co-

cainized tongues, so taxed were my peripheral nerves.

And there, well nigh barring my entrance to the candy shop, was that dreadful poster. Propped on an easel against an amorphous, chlorophyll-green meadow, I guess, hovered the disembodied heads of half a dozen or so sheep, all with cigarettes, if you please, hanging out of their nasty mouths. Across the meadow was inscribed the injunction: "Why be one of the herd? Think before you smoke."

I must say I did not, could not, think. I happen to hate sheep, and, having counted some twenty-six hundred of the filthy, lanolin-laden beasts the previous night, I was shaken beyond any hope of cerebration. All I knew was, the surgeon general and the pathology department and the dignity of human enlightenment notwithstanding, I had to have a cigarette, then and there.

Sheepishly, I entered the candy shop and made my miserable, twenty-eight-cent transaction, trying all the while to hide my medical bag, that abscessed thumb of identification, in the folds of my London Fog.

"Thank you, doctor," chirped the delightful, membrane-colored volunteer behind the counter.

Profoundly nauseated, I sneaked into a men's room and locked myself in a stall. After several quavering, cilia-searing inhalations, I flushed the remainder of my cigarettes down the toilet.

Since I stopped smoking I've gained ten pounds, most of which has shown up peri-umbilically. The rest, I suppose, has settled around my coronaries and throughout the myocardium. But what bugs me is the insomnia. It's bad enough counting ordinary sheep, but now . . .

GARY POSER, '65

Letter from an Alumnus*

by Howard B. Sprague '22



In the early part of the 18th century, there lived in London a Barber-Surgeon named Daniel Turner. He became dissatisfied with his status and resigned from the guild of Barber-Surgeons, for which he was fined £50. He spent the rest of his life trying to acquire a medical degree of sufficient prestige to permit his acceptance as a Fellow by the Royal College of Physicians, although he had been admitted to the lower category of Licentiate. In London he met a Harvard graduate of the class of 1699, one Jeremiah Dummer, then representing the Colony of Connecticut. Dummer told him of Yale's need of a library, and he sent the college some books and wrote a postscript as follows: "If your worships consider me worthy of the doctoral degree of Yale Academy, and have the diploma sent to me, I shall receive it not only as a sign of your gratitude, but I shall consider it an honor as much as though it had been conferred by another university, though of greater note. Farewell most learned sirs and may your Academy flourish."

Yale, founded in 1701, did not have a medical school until 1810, but forthwith sent him an honorary M.D. degree in 1723 (the first medical degree given in the American colonies) which his critics said stood for "*multa donavit*" — he gave plenty. I am in no position to throw bricks at Dr. Turner since Harvard gave Dr. John Sprague — Class of 1737 — an honorary M.D. degree in 1792 after he became a benefactor of our institution, but did not grant M.D. degrees to its medical school graduates until 1811.

Harvard started its medical school in 1783 following a preliminary meeting of Boston doctors, three years before, at the Green-Dragon Tavern, and gave its first M.B. degree in 1788, but I still think one might suspect what Turner was referring to by "another university, though of greater note." Unfortunately, Turner's efforts were in vain — his Yale degree never got him his Fellowship in the Royal College. Perhaps the College thought him not quite critical enough in that he defended, like Hippocrates, the effect of prenatal influences to the extent of explaining a black baby of a white mother by her having studied frequently a pic-

ture of an Ethiopian that she had hanging in her room.

This historical note is my oblique way of introducing Harvard medicine and Harvard Medical Alumni. There are now about 6,000 living, but as a measure of medical demand, it is estimated that this country will need 3,500 new additional medical graduates a year by 1970, and there are 836 vacancies on the nation's medical faculties this year.

The cost of a medical education now is from \$12,000 to \$18,000 for the four-year course, without counting the expense of internship and residency training.

What we call "hardware" in military appropriations has become appallingly expensive. Harvard started an early scientific instrument program in the first laboratory of experimental physics in this country, but not until 1793, and there is an unbelievable difference between \$45,000 which was the total income of Harvard University in 1823 and an equal amount often necessary now for one relatively inexpensive piece of research equipment.

Harvard, however, may be permitted to talk about its medical and other achievements within the alumni family. One quarter of all the full-time professors of medicine in the United States and twenty-two deans of medical schools are Harvard graduates, or received part of their education here. Harvard teaches more students — including Ph.D. candidates, interns, residents, and fellows — than any other medical school except Minnesota, and it is the only private school in the top six.

What we now see at the Medical School is an expansion of scientific medicine that enthalls the dedicated student. We continue to get the most highly qualified students and they graduate with the highest scores.

What is this inspirational influence of Harvard Medical School? It lies perhaps in the completeness of its vision — the ability of Harvard to study man in both his micro and macro aspects. There is, for example, a Division of Medical Biology, and also a Clinical Research Center and a combined Chair of Psychiatry and Psychobiology. Of the \$58 million we are raising, \$14.5 million are allocated for basic science and \$33.5 million for clinical departments.

At the Harvard Medical School, including the School of Dental Medicine, there are 558 individuals holding faculty rank, 94 with tenure; and a total teaching

staff of 1,613. In addition there are 646 in a training status, as research fellows or associates, making a total of 2,259 Corporation appointments.

The year 1962-63 brought a new high point in annual donations by the alumni to the Harvard Medical Alumni Fund — \$215,212 — and the Alumni, in addition, have contributed over a half a million dollars to the capital fund raising program in the short period during which they have been solicited.

The major aim of the Program for Harvard Medicine's capital drive is to strengthen the faculty by making it possible to maintain teachers in a lifetime of academic medicine. The annual contributions to the Alumni Fund are designed to free unrestricted funds for scholarship aid. The need is there. In 1961-1962, 46.4 percent of the entire student body at the Medical School received \$397,418 in scholarships, loans, or fellowships. Twenty-five percent needed both scholarships and loans, but in 1962-63, 68 percent needed both. It costs an unmarried student \$12,000 to go four years to Medical School, but it costs the Harvard Medical School about \$10,000 a year per student.

Harvard must continue its role as a leader in American medicine, and this requires expanding facilities on an exponential curve. One of these, the new Francis A. Countway Library of Medicine, formed by a union of the Boston Medical Library and the Library of the Harvard Medical School, is already in its early structural stages. It is hoped that it can be finished by commencement, 1965. It is expected to be the finest privately endowed medical library in the United States and the second largest in the world, exceeded in size only by the National Medical Library in Bethesda, Maryland.

More advances have been made in the science of medicine in the past twenty years than in all of previous history.

We are now concerned with the containment and distribution of our rapidly increasing knowledge. It takes wise teachers, impressively absorptive students, sympathetic alumni, and an understanding public to bring this about with the best balance of governmental and private means. One doesn't need to be a Harvard alumnus to suggest that the Harvard Medical School is one of the best places to accomplish this. As our lawyer friends say, "*res ipsa loquitur*," which can be freely translated "Why argue about that?"

*Reprinted from the *Harvard Alumni Bulletin*, where it originally appeared as a report to the directors of The Harvard University Alumni Association in November, 1963.



50 YEARS for

Robert B. Brigham Hospital

by Theodore B. Bayles '36

In 1842 a 16-year-old boy from Bakersfield, Vermont, named Robert Breck Brigham walked into his uncle's restaurant in Boston and landed a job as an oyster opener. The uncle was Peter Bent Brigham, who had arrived in the city some years before and established himself as a restaurateur, hotelier and real estate investor. Robert worked for his uncle for ten years, and then, by dint of self-denial and thrift, was able to open a restaurant of his own. Because of ill health, his first venture did not fare too well, and Robert had to sell out. In 1860, after a brief sojourn in Florida, he returned to Boston and bought another restaurant, which he called "Brigham's Oyster Saloon." This one proved to be the foundation of his fortune, and the restaurant became famous for its lemon pie as well as its oysters. It was also the first restaurant to serve liquor with meals at the tables instead of at the bar. Brigham's competitors declared, and his friends admitted, that he had an eye for business — to the extent that he had discovered "how to cut a pie into five quarters."

In order to keep his eye on the business, he moved into a small room over the restaurant, and there he lived and saved until he died forty years later. A man whose social ambitions were apparently nonexistent, he took no interest in sports, rarely travelled, sought no public office and had no affiliations with any church or club. His only foray into public life was to build The Hollis Street Theater, at which he maintained a private box.

After his one unhappy marriage at the age of 44 with a pretty cousin of 22, his sister, Elizabeth Fay Brigham, came to live with him, and added her efforts to his in a campaign for solvency. When Brigham was sixty-five he sold the "Oyster Saloon," but they both continued to live over the restaurant, and saved money. And more money.

Towards the end of his life he asked his lawyer, Halsey J. Boardman, for advice in disposing of his fortune. One story has it that Boardman asked his own daughter, an Associated Charities' volunteer visitor in Roxbury, what she could suggest. Having found that it was extremely difficult to find proper places for the care of so-called 'incurable' patients, she proposed that Mr. Brigham build a hospital for them.

Apparently, Brigham took kindly to this suggestion, for a few days after his death in January, 1900, it was found that the most important provision in his will was for the construction and maintenance of a hospital for destitute victims of chronic disease.

Three years later, on February 11th, the Robert B. Brigham Hospital for Incurables was chartered by the Commonwealth of Massachusetts. The trustees purchased approximately ten acres of land on top of Parker Hill, from which could be seen the then muddy, marsh-like and empty flats of Back Bay. In November, 1912, Louis M. Spear '04 was appointed the hospital's first physician-in-chief, and the hospital was opened for admission of patients on April 1, 1914.

In many ways the early days were halcyon ones, especially for the patients who enjoyed free entertainment and lectures given by such local celebrities as Clarence Rodeheaver, trombonist from the Billy Sunday Tabernacle, and Miss Reva Saffron, singer and character actor. Joel E. Goldthwait '90, who became president of the hospital from 1916 to 1923, recollected:

... at the outset there were no financial worries, because the director of the Massachusetts General had told the (Robert Brigham) trustees that the care of patients would not be very expensive. Seven dollars a week would be enough to care for the type of patient to be admitted.

Unhappily, this was not the case. Since the income from the estate was not sufficient to support hospitalization of all patients without charge, the institution was almost immediately assailed by financial problems. Under the Brigham will, the hospital was intended to be entirely for charity cases, but it soon became necessary to get relief through the courts to allow for admission of some paying patients. One year after the hospital opened, a patient of Dr. Goldthwait's from Memphis, Tennessee, who suffered from progressive muscular atrophy, became the first private patient.

At the end of World War I, the Army took over the hospital and continued to use it for sick and wounded soldiers until 1923. At that time the cost of keeping a free patient averaged \$5.66 daily, of which food accounted for 57.4 cents; private patients cost \$4.57 per day, with a food cost of 51.4 cents.

From then on, the story is partly written in cold statistics — numbers and types of patients, increased expenditures for research, numbers of papers published — and even more, by the names, ideals and efforts of the men who have done and are doing the hospital's work.

In the 1920's, when the hospital launched its long and fruitful teaching connections with the Medical School, Boston School of Physical Education, and Boston School of Occupational Therapy, it began to conceive of itself as a research center for the treatment of arthritis and other chronic, incurable diseases, rather than as merely a "home."

The men who realized this concept were those appointed to the hospital in the 1930's. The work of Granville A. Bennett, a pathologist who concentrated on the study of rheumatic diseases, and Dr. Spear were major milestones in the hospital's development. At a time when the methods and techniques of care for chronic diseases were in their infancy, it would have been easy for these men to take the easy path, making the chronic patient reasonably comfortable for the rest of his life, instead of attempting to find the cause and cure of his disease and put him back into the community. It was also during this decade that Marshall Goldthwait Hall, assistant physician and nephew of Joel E. Goldthwait (whose family has served the hospital for three generations), introduced many other young Boston physicians to the staff; instituted the post of consultants in medical research, which was held by Walter Bauer, Chester Keefer, Hallowell Davis '22, and F. H. Laskey Taylor; and stimulated a study of vitamin C. The hospital's growing academic emphasis at that time was indicated by chief of staff Dr. John G. Kuhn's statement in his annual report of 1937:

The medical staff is seeking advice and cooperation with outstanding men in related branches of science . . . to make more rapid progress in the treatment of chronic disease.

On the eve of the 1940's, when J. Sydney Stillman '34 was made chief of the medical service and the writer became research fellow, the study of gold salt therapy for rheumatoid arthritis was undertaken.

During the war, this burgeoning activity was quelled, but in 1945, most of the staff returned and students reappeared at the hospital, and Dr. George W. Thorn, then a consultant in medical research, instituted the system of rotating interns from the Peter Bent to the Robert Breck Brigham. The hospital also instituted regular ward visits by an orthopedist and internist and weekly grand rounds: began a project on adrenocorticoids in rheumatoid arthritis, started using radioactive, iodinated gamma globulins from rheumatoid arthritis to study whether the disease was caused by hypersensitivity in the body; and worked on the specificity of supposedly immune substances for various body tissue.

When the effect of adrenal steroid hormones on the signs and symptoms of rheumatoid arthritis became

known in 1949, the Robert Breck Brigham was able to begin its own program in the field by the financial support of the national Public Health Service for the purchase of adrenal steroid hormones. Two years later the research department was struggling with certain questions about the effect of cortisone on rheumatoid arthritis. First, in what dosage and in what way should these drugs be given to improve the functions and increase the well-being of patients with rheumatoid arthritis? The U.S. Public Health Service granted the research department \$17,000 for a study of the problem.

The following year, when the writer was appointed director of research and Joel C. Goldthwait '43B (grandson of Joel E. Goldthwait) became clinical fellow through the Arthritis and Rheumatism Foundation, the research budget was now nearly \$30,000 and the Public Health Service sponsored a study of anemia associated with rheumatoid arthritis.

An important milestone was reached in 1961, when the hospital was selected by the National Institute of Arthritis and Metabolic Diseases to establish and operate a clinical research center. The facilities of this special nine-bed unit and related laboratories opened in May, 1962, and are now being used to investigate five basic areas: plasma protein, which has to do with abnormal proteins of rheumatoid arthritis bearing physical and immunological similarities to antibodies (John G. Harter '53, and Arthur P. Hall, assistant in medicine, HMS, are involved with this work); pathology and experimental pathology, under the direction of J. Peter Kulka, assistant clinical professor of pathology at HMS; cartilage and bone metabolism, under the direction of Daniel S. Bernstein, instructor in medicine, HMS; pharmacology, with Kenneth Fremont-Smith '48, who continues his interest in practical and theoretical aspects of salicylate metabolism; and orthopedic research on surgical approaches to repair and prevention of damaged joints, with Dr. Theodore A. Potter as chief of orthopedic surgery.

This year the Robert B. Brigham celebrates the 50th anniversary of its opening. When the Robert B. Brigham first opened as a hospital for "incurables," the majority of those admitted suffered from some form of rheumatic disease, and, as a result, many significant innovations in the field of rheumatic diseases have been developed at the hospital. Today it is the only hospital in the United States primarily concerned with the study and treatment of arthritis and related diseases. With justification one could say that the will of Robert Breck Brigham has been carried out, but to a much wider and greater extent than his original concept. Fifty years ago who could have envisioned how much more would be learned of the nature of crippling arthritis, of how to control its course and relieve its mental and physical anguish? Now there seems reason to believe that one day someone will say, "This is the cause of arthritis"; and on another day, someone else will say: "These are the cures, the preventions, the controllers."

Outside HMS:

Part III of the National Boards, or Wednesday Afternoon at the Movies — An Exposé

by Paul J. Davis '63

Motoring to the last of the three parts of the National Board exams recently, I was scanning a late edition of *The National Enquirer* and marveling that Hitler was still alive in Argentina and that the Wolf-Boy of Pakistan had opened up a string of *bordelli* in Lahore. I was struck immediately by the fact that *The Enquirer* has failed in its many years of *amarillo* journalism to expose the National Boards and Philadelphia together, to the country-wide scrutiny which *The Enquirer*, alone, can inspire. It has become, then, the bane of the common practitioner to take up the sword in this particular issue.¹ Parts I and II of the National Boards are to be discussed at substantial length in a soon-to-be-published monograph,² so that I feel free to devote all of our collective attention to the final segment of this vast examination mechanism which Albert P. Terhune has described so aptly in his book as "the American Express card of medical education."³

Several features of Part III set it apart from its precedent parts: 1. fee, 2. design, and 3. psychology. The fee for Part III is \$40, which is more than fourteen quid. This is a sizable amount which goes to pay for the glossy paper, photos, color motion pictures and erasers which are so picturesquely a part of the exam. A \$30 package test-marketed in Montclair, N.J., which included only black-and-white movies has drawn a wan smile of approval from house officers there used to dealing with problems in black-and-white terms. One may always find fault with glossy paper: its cost, weight and glare — although most of the examining center amphitheatres are so dark the latter is not a problem — are

the subject of a recent timely review.⁴ Glossy paper tends to be sensuously cool and squeaky, however, and for those who find some solace in this while brooding over imponderables, the question of increased cost is of no moment.

I think, however, that for \$40 one ought to expect high standards of care in preparation which I am reticent to reveal at this juncture were lacking in booklet 2222 of subpart A, Part III. It is not common knowledge, but pages 8 and 9 in this booklet were blank. In fact, I took a bad spill racing down the steep amphitheater steps to the desk of the beady-eyed proctor, waving booklet 2222 and petitioning for full redress. I was able to obtain another test booklet only after presenting my full credentials, which fortunately I had concealed upon my person shortly before departing for the test center. I was further disturbed by the fact that there was an insufficiency of certain preliminary forms to be filled out prior to the examination: upon these the testee was to record the address to which he wanted his certificate of successful exam completion to be mailed. Years from now I am sure my thoughts will turn to the last six unfortunate fellows who filed into the shadowy amphitheater only to hear there were no more preliminary forms; and I will wonder whether or not they ever received their certificates (on the other hand, it is possible that those who do not submit preliminary forms automatically fail the examination, so that my speculation may be an entirely academic one).

Like the earlier portions of the Boards, Part III is made up of several components. A glossy subpart A with coloured photographs, an animated subpart B with coloured motion pictures of doctors and patients in real-life situations, and a messy subpart C which involves a good deal of exuberant erasing and leaves blue serge veneered with rubber eraser remnants (one reason, no doubt, why gabardine was so popular with the forewarned). In this exam there is not the heavy reliance

4. "Deadly Medical Prose," *Harv. Med. Alumni Bulletin* 37, Summer 1963.

1. See Egerton Y. Davis, *The Bane of the Common Practitioner Is to Take Up the Sword*, Baltimore: J. H. Press, 1910.

2. P. Davis, soon-to-be-published monograph.

3. Albert P. Terhune, *Lad, The Story of a Boy*.

(Dr. Davis' humorous piece above makes fun, rather lightly, and cynically to be sure, of the National Boards. It is a bit of 'undergraduate spoofing,' and after all, is there any exam in the world for which a normally-oriented student cannot find criticism? Ed.)



on confusing question mechanics — e.g., A is related to B, both are true but not related, etcetera — instead the factual material, itself, is so obscure that no further obfuscation need be resorted to. Then, if Fate has relegated one to the far reaches of a given amphitheater during the motion picture hour, only intuition can salvage subpart B, and, as suggested above, the lighting is so poor in certain of the test centers that during the movies one is hard-pressed to know when the lights are on and when they are off. Often, to save confusion, the proctor will announce, “Now the lights are on,” or “Gentlemen, stop writing. The lights are now off.”

Subpart C is a spirited two-dimensional version of a teaching machine. For each question about a given clinical situation a number of answers are presented, each with a *nevis* blue rectangle next to it. When erased, each rectangle is found to hide a comment about the particular answer choice, either forcing one’s hand with regard to other answer choices or providing irreparable negative feedback involving earlier (rash) answers. Let us have an example.

A 35-year-old male brass worker is found to have a putrid and malignant fever.⁵ The cerebrospinal fluid is described as ochre and has a high chloride content, and a preliminary urine culture reveals *E. intermedium* sensitive only to Colistin.

The testee is asked for his choice: a) complete blood

5. Synonymous with “the Tennessee quickstep.”

count, b) urinalysis and vital signs, c) serology and BUN, d) intravenous pyelogram, or, e) therapeutic trial of Amphotericin-B. Let us suppose one chooses c). The blue rectangle is erased and one finds the cryptic statement, “Ordered,” or “Noted.” Clearly this is an unsatisfactory choice and one jumps immediately to d), where erasure reveals, “Good choice. IVP shows fungus ball in major calyx left kidney.” *Les jeux sont fait*, as they say, and one is thus committed to erase answer e) where it is disclosed that the BUN is back and reveals a significant azotemia which precludes the use of the fungicide. One has thus made two errors in three choices, not to mention what has been overlooked that lurks beneath the un-erased blocks. Occasionally one erases a particularly inappropriate block to find some churlish or snippy rejoinder such as, “Doctor, remember litigation is one of the facts of medical practice,” or “Stop writing, the lights are now off.”

It is this IBM’d extravaganza which has replaced the time-honored patient confrontation which our forefathers cherished less than three years ago: a silent movie has been substituted for the flesh-to-flesh examination which was the without-which-not of Part III. The discomfiture of several who resented this transition was underscored by those who nonetheless brought their black bags to Part III this year and allowed their sphygmomanometer cuffs to hiss malignantly during the movie. By now *The National Enquirer* knows about the situation. Whether it will act — as it did so vigorously in the deplorable Wolf-Boy of Pakistan issue — remains to be seen.

Editorial

What Shall I Tell My Son — Or Daughter?

The committee on admission of the Harvard Medical School has just presented its annual report to the Faculty of Medicine and to the Alumni Council. A total of 1,150 students completed applications for the first year class entering in the fall of 1964. This reflects an increase of 32 per cent in application activity over the low point of 871 candidates in 1961. A similar sharp upswing in the number of medical school applicants has been noted throughout the United States.

Explanation for this abrupt end to the much publicized decline in number of young people wishing to enter the study of medicine can only be speculative. There is a correlation between the yearly change in the number of applicants to medical schools in recent years and the national birth rate for the years just prior to and during World War II, but it is impossible to predict the impact of the post-war baby boom. The resultant yearly increase in the number of young people who enter college, as well as the much greater percentage of college graduates who plan to go on to graduate school, will intensify the competition for places in medical schools.

This forecast augurs well for the future supply of physicians to meet the nation's health needs — if it can be matched by increased teaching facilities in existing and new medical schools.

In the class of 114 medical students to graduate in 1968, there are 31 sons and daughters of physicians. This is 17 per cent of the total number of applicants who were born into medical families. Of particular concern to the Alumni is that only 19 Alumni sons applied, and only five were accepted. Why were not more admitted? Because the Alumni sons were less adequately prepared in the requirements for medical school and had academic records considerably lower than those who successfully gained acceptance to the Harvard Medical School. It is the policy of the committee on admissions to consider applicants without regard to race, color, creed, college, or residence, and indeed without consideration of financial status. In keeping with the fairness of this policy, the committee is unwilling to reject a superior candidate in favor of an average or below average applicant, solely because the latter's father attended the Harvard Medical School.

We speculate that the reason underlying the poorer college records of some Alumni sons is in part their rebellion at the idea of entering the medical profession, which results in their avoidance of the courses required for admission to medical school and often, also, in a less than over-all optimal performance in college. Often these sons appear as late bloomers, hoping by some miracle, either in their senior year or after graduation, to overcome the handicaps of a less than compelling record.

The Alumni must become aware of the increased competition that their sons are facing. The quality of applicants has kept pace with the increasing numbers. College admissions officers report ever higher averages for the scores on College Entrance Examination Boards. There is a noticeable upgrading in both secondary school and college educational expectations and achievements. The students who present

themselves for admission to medical school appear better prepared than those of even a decade ago. For the Harvard Medical School in particular, there has been a steady increase in the average scores on the Medical College Admission Test for both the total applicant pool and for the accepted class. Having completed its selection of students for the class of 1968, the committee on admission of the School believes that this class is the brightest yet.

In this pool of applicants to the Harvard Medical School, there were enough well-qualified students to fill seven or eight classes. The committee on admission was faced with the problem of choosing those for whom an education at the Harvard Medical School seemed most appropriate. As a result, the committee's concern was to find strong reasons for admitting the candidate, rather than simply reasons for rejection. The successful applicants were chosen because, in addition to a high degree of ability and a record of academic achievement, they also presented outstanding personal qualities, such as high integrity, maturity, judgment, and evidence of achievement in some field, either academic or extracurricular. Many applicants whose sole claim to a place at the Harvard Medical School was a high academic standing were disappointed.

More than one third of the class selected to enter in the fall of 1964 majored in non-science areas during their college careers. Because they were able to take advantage of advanced placement in the sciences as a result of their good secondary school education, these students were able to have adequate time for a non-science major *and* take four or five advanced science courses to complete their medical school requirements. Such students were equal or superior in scientific preparation to the science majors who had begun with freshman science courses and progressed systematically through their years in college. On the other hand, the humanist dedicated to working with people but fearing mathematics, who hopes that science will be a minor part of his medical education, stands little chance of being accepted to medical school. A liberal college education is the preparation for a full and culturally rewarding life, not merely a steppingstone to graduate school. Consequently, if one is to consider himself educated, he must have knowledge in both the humanities and the sciences. The scientist who can be human and the humanist who can be scientific are the ones most likely to succeed in medical school.

With this obvious increase in competition for places in medical school, the Alumnus may ask: "What advice should I give to my son or daughter?" Direct pressure on youth to enter the profession of his parent's choice may generate further rebellion, but the subtle suggestion that he study science to as advanced a level as possible, mathematics through calculus, as well as some scholarly work in any field of his interest while pursuing his college education, will better prepare a Harvard Medical School Alumnus offspring to compete for a place in the Medical School, if he eventually decides to study medicine. Such recommendations will prepare your children for successful careers in any walk of life, and if medicine is their final choice, they will make their acceptance to Medical School much easier.

PERRY J. CULVER '41
Clinical Associate in Medicine
Assistant Dean for Admissions
of the Faculty of Medicine

A PREVIEW OF THE NEW CURRICULUM FOR THE CLINICAL YEARS AT HARVARD

The rapid expansion of medical knowledge and the major changes which this new information has brought about in the ways in which disease may be managed has necessitated a careful reappraisal of the education systems used to prepare students for careers in medicine. The faculty has been dissatisfied with the curriculum for medical students for many years. Indeed, major changes were advocated as long ago as 1945, only to be abandoned because of postwar deficiencies in manpower and financial resources.

The ferment which led to these proposals continued, however, and resulted in a rather complete rearrangement of the curriculum for the preclinical years starting in 1957. The details of this new plan and the philosophy upon which it is based were described in the *Bulletin* in April, 1957, and discussed in the light of four years' experience in the spring issue of 1961. The time has now arrived to present a preliminary view of the next major step in the faculty's continuing efforts to revise and modernize its teaching arrangements — the plans for a rearrangement of the curriculum for the clinical years, which will be instituted in September, 1964.

A more complete description of this program, including a discussion of the considerations which led to its adoption, will be presented in a subsequent issue when all the details of its several parts have been worked out. Hence, what follows is a brief presentation of the general outline which was voted by the faculty in April 1963 and has been widely discussed both at Harvard and elsewhere in recent months.

The diagram (right) outlines the major features of this program. It has been constructed to show the interface with the preclinical years as well as the structure of the clinical years. No outline of the arrangements which this plan will replace has been included, since the present clinical curriculum has not been changed in more than 40 years and should be familiar to all.

The second semester of the second year will continue to contain the courses in Pathophysiology and Case Taking

(physical diagnosis and history taking), with only minor rearrangements. The most notable of these will be a transfer of the course in Surgical Technique from its current position as part of Case Taking into the early part of the third year. The summer will be left open for research or other activity.

The third year will open with an intensive course of 12 weeks' duration, entitled "Introduction to the Clinic." Its primary purpose will be to bring the students to a higher level of competence in handling and examining patients than is possible in the Case Taking course — in other words, it will equip the student to begin to assume responsibility for patients at the very outset of his clerkships. Students will be assigned for intensive, closely supervised experience with patients six mornings and one afternoon per week for the entire 12 weeks to one of four general hospital areas: Massachusetts General Hospital, Boston City Hospital, Beth Israel Hospital, and Peter Bent Brigham and Children's Hospitals. Instruction will be divided about equally between medicine, surgery, and the several specialties. Two afternoons each week will be left free, and the other two will be devoted to didactic teaching at the Medical School. This will be taken up by whole-class exercises and demonstrations, chiefly in the specialties, and the course in Surgical Technique.

The Introduction to the Clinic will be immediately followed by a 12 month period of clinical clerkships to be called the "Principal Clinical Year." As shown, this period is divided into four blocks of 12 weeks each with vacation periods at intervals for the whole class. Medicine and Surgery will each occupy a complete block, another will be split equally between Pediatrics and Obstetrics and Gynecology, while the final block will, in effect, be divided into four portions of equal length assigned respectively to Psychiatry, Neurology, Orthopedics, and to a combination of Dermatology, Ophthalmology, and Otolaryngology. The class will be divided into four equal groups for rotation through these four sections.

Wednesday afternoons will be left apart from the regularly assigned clerkship time throughout the year. The courses in Preventive Medicine and Legal Medicine will occupy the major portion of this time, the balance being probably devoted to lectures by well known faculty members in their several disciplines.

The final five months of the medical course will be given over to tutorial and elective courses. Each student will be assigned a faculty tutor to assist him in planning the content of this period. Several purposes are envisioned. First, it will provide all an opportunity to study in depth some aspects of the broad field of medicine. Second, it is felt that more meaningful programs with better emphasis and, hence, greater appeal can thus be made available than are presently provided by the totally unguided selection of electives. Third, better opportunities can be provided for self-education of the type implicit in most graduate programs. Finally, for any student adjudged not to have achieved adequate competence in his required clinical work, an opportunity will be provided to repair his deficiencies before graduation. The list of elective courses from which students will select their programs will include offerings of a wide variety in both basic science and clinical fields.

In order to provide a focus for this final period, a final comprehensive examination will be held which will in all probability give each student an opportunity to stand an oral examination emphasizing the student's special field of study.

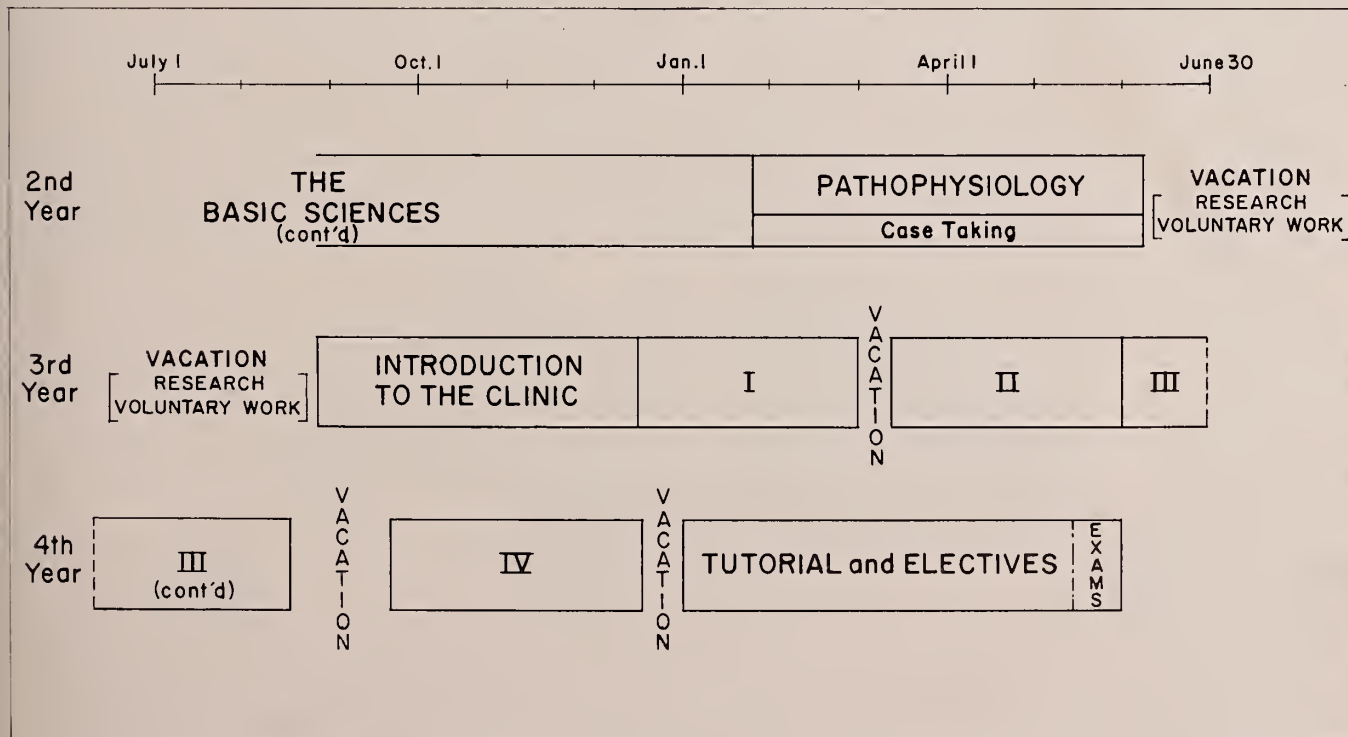
A senior faculty committee will superintend the administration of this tutorial program and will be responsible for establishing policy, the selection of tutors,

and the assignment of students. As presently envisioned, each tutor will begin meeting with his tutees by the middle of the principal clinical year, if not before. Sound advice and guidance in advance of the final period should thus be possible.

Under this program, the major objections to the present third year, excessive travel and fragmentation of time, should be largely eliminated, while clerkship experience, universally regarded as the most effective and enjoyable form of clinical instruction, will be increased. At the same time, the students will continue to have major clinical experience in several different hospitals — a feature long regarded as one of the strengths of medical education at Harvard. Finally, the faculty believes the tutorial and elective period should provide an unusual opportunity for students; not only will they be able to delve at considerable depth into some field of interest to them, and thus savor the breadth and depth of Harvard medicine, but also they will learn by practical experience, gained under guidance, how to plan and execute the kind of self-education program that each will have to provide for himself throughout his medical career — if he is to keep abreast of the changing patterns of medicine in the future. How well this program will accomplish these aims, and how completely the faculty's hopes for improvement in the quality of the clinical education at Harvard will be realized by it, are questions whose answers are eagerly awaited.

GEORGE NICHOLS, JR.

Associate Clinical Professor of Medicine
Associate Dean for Academic Affairs of the
Faculty of Medicine



The Amazing Life
of
Edwin H. Allen '89



1889 graduation picture. Dr. Allen is the first HMS alumnus to celebrate his 100th birthday.

Today it is not fashionable to stand in awe of many things, but still, everywhere round the world, the celebration of a man's hundredth birthday is a remarkable occasion. Perhaps the secrets of such longevity are contained in the following autobiography by Edwin H. Allen '89, who is the oldest living graduate of the Harvard Medical School. Still sound in mind and body, he celebrated his 100th birthday on April 16, 1964. Dr. Allen lives on Hancock Street, Boston, where he has been for almost 75 years. His vividly described anecdotes span not only his own long life but create a remarkable bridge back in time to the early 1800s.

The following is a list of the oldest living graduates of the Harvard Medical School:

*Edwin Howard Allen '89
Boston, Mass., age 100
b. April 16, 1864, Alfred, Me*

*Philip Sosnoski Sumner '95
Brookline, Mass., age 94
b. Sept. 29, 1870, Place unknown.*

*Henry Dexter Chadwick '95
Waltham, Mass., age 92
b. Jan. 2, 1872, Boscawen, N. H.*

*Joseph Almarin Capps '95
Chicago, Ill., age 92
b. Feb. 28, 1872, Jacksonville, Ill.*

*William Herbert Grant '96
Hartford, Conn., age 92
b. Sept. 24, 1872, Hartford, Conn.*

*Albert Waterman Rounds '98
Providence, R. I., age 91
b. Sept. 13, 1873, Johnson, R. I.*

*Joseph Storer Hart '00
Lincoln, Mass., age 91
b. March 16, 1873, Charlestown, Mass.*

I was born in Alfred, York County, Maine, April 16, 1864, the fourth and last child of the Honorable Amos Lawrence Allen and Esther Maddox Allen.

Alfred, the shiretown, was settled in 1763, and in 1864 its population was about 1,200. The county courthouse was built in 1800, a few years later the academy, the first in the state, which prepared students to enter Bowdoin, the only college in the state at this time. Alfred was on the stagecoach route between Portland and Boston — it was about thirty miles to Portland and about 100 to Boston. In 1860 there were four hotels, and when court was in session or on days of the county conventions, the hotels were filled and it was a busy town. In addition there were five churches and three mills, a saw mill, a grist mill, and a woolen mill. There were always two physicians who were often very busy, as there were no physicians nearer than Springvale five miles away. In 1864 stagecoaches were still running. By 1870 the Portland & Rochester railroad was in operation, and of course the telegraph followed the railroad. At this time in Alfred, there was no poor farm and the town had no debt.

Such was the peaceful scene presented by Alfred at a time when oxen were plentiful, when in fact I recall some 50 yoke of them were used to move a substantial

structure, when Christmas was mainly a religious holiday and there was no decorating of Christmas trees, and when outside entertainment consisted in listening to one or two visiting clergymen a year. What a contrast in the span of one lifetime to sit now in front of television and watch the launching of a manned rocket into space!

I entered the primary school in Alfred in 1868 when I was four years old, and I distinctly recall my first punishment. For laughing aloud the teacher stood me behind the door, where being sleepy I sat down on the floor and fell asleep. In 1871 I entered the grammar school and during the entire year I was neither absent nor late. As a result I received a certificate I still cherish which states my deportment had been perfect and adds in scroll, "A good name is rather to be chosen than great riches." I entered the high school in the fall of 1874 as the youngest pupil. At home I heard my father almost daily going over problems my older brother had in courses I had yet to reach, and in school similarly I heard the recitations of the older scholars. Quite naturally the result was that studies and marks came easy to me, but in consequence deportment was another matter. Boys were required to declaim twice or three times each term. By finding a poem of three stanzas and declaiming one stanza at a time, I made it last a term or more and I understand it was used by others for years afterwards.

About this time I was reading English history, and my father noticed I was reading about the Battle of Waterloo. He suggested I should talk with James Bradeen who could tell me about the battle. This was 1880; the battle, 1815. Father explained that Jimmy fought under Wellington when 18 or 19 years of age. A few days later I saw Jimmy at the village and was thrilled by his description of the battle, the outcome of which remained in doubt till late in the day when word reached the soldiers that the French were retreating in panic form. It still gives me a thrill to recall that a famous battle nearly 150 years ago was described to me by one of the soldiers who had been in the thickest of the fight.

Late in 1874 my grandmother and grandfather Allen celebrated their golden wedding anniversary. Seven of their ten children were present and among them their son Otis, who had gone to California in the gold rush days of 1849. From him I heard many interesting tales of the period, ranging from his experiences as a member of the committee of safety in San Francisco to his problems in a party of 12 crossing Panama on foot. This was the first party to cross the Isthmus instead of sailing around the cape to reach California.

I elected to go to Bowdoin because my father had graduated from there in the class of 1860 with his classmate and close associate the Honorable Thomas B. Reed, subsequently speaker of the U. S. House of Representatives, and also because my older brother was already there as a junior. Freshman year at Bowdoin on the whole was uneventful. It was Latin, Greek, and mathematics. There was no gymnasium and athletics were at a low

ebb. Some of the students, but few freshmen, were invited to small whist parties. There were practically no public entertainments. Hazing was then in vogue, but later in the year it received a severe setback. When certain freshmen did not put lights out on the command of sophomores, coal was thrown through the window of one, striking him and leaving him in a dazed condition so that he later left college. The other one struck was the son of a prominent lawyer who later became a judge of the Supreme Court, and he sued the nine culprits and was awarded \$2500, a considerable sum for those days. He made no attempt to collect this, as his purpose was to curb hazing. Also in freshmen year I joined the Psi Upsilon Society, primarily because my father and brother were members.

When I became a sophomore we did very little hazing, owing to the change in sentiment which had occurred following the trial. However, the incoming freshman class of less than thirty seemed disposed to break college customs. Among the various episodes one freshman, Fred Smith, allowed his mustache to grow — which was clearly contrary to college customs. He was spoken to, and it was shaved off but when he again allowed it to grow, this resulted in a committee to straighten the matter out. While not a member of the committee, I had been in his room somewhat earlier and therefore was one of those reported. The faculty took a serious view of the matter, which we all felt was unduly harsh. The upshot was that 11 sophomores decided to leave college — one went to Williams, two did not complete the college course, and the other eight went to Dartmouth, including myself.

I entered Dartmouth in March, 1883, took the examinations, and after calling on President Bartlett and others, secured a room in Dartmouth Hall, two flights up. The spring term opened a few days after the Bowdoin group came. We were cordially received by the class, also by members of the faculty who met us.

And now a word about my notebooks. I learned shorthand, the Isaac Pitman system, when fourteen — mostly because of disparaging remarks by my father as to my chances of ever learning it. Consequently I was able to take lectures verbatim. I was in fact indebted at least in part to my complete shorthand notes for one pleasure I vividly recall. The ablest and most brilliant man in our class — in fact, in my opinion the most brilliant man in Dartmouth College at that time — was Richard Hovey, the author of the famous *Stein Song* which, it should be added, was written after Hovey's graduation. We all knew that Hovey had unusual talent as a writer of prose and of poetry. When he was only eighteen or nineteen, he knew as much about English poetry as the professor, partly because he quite often read all night to the occasional detriment of his other studies. Hovey also was a member of Psi U. He and I were friends and I think he talked with me oftener than with most of his classmates.

Professor Gabriel Campbell's lectures on the history

of philosophy and on physiology I took verbatim, and about ten minutes before the recitation Hovey usually rapped on my door. "Hello Dick," I would say, "going into Gabe's recitation?" With dignity Dick would answer, "I think not. I was not present at his last lecture and know little or nothing about the subject." Then I would give Dick a brief review of what Professor Campbell had said in his last two or three lectures and after I had finished Dick would say with a smile, "Well, I think I will go to the recitation." He would go into the classroom and sit up front where he was almost sure to be called upon. The Professor would ask him several searching questions, believing him not to be posted because of his absences. "Mr. Hovey" — he would stand up with marked dignity and for five or ten seconds would make no attempt to speak or answer the question. In that time he would mentally phrase his answer in beautiful English and then give an excellent recitation, to the surprise of everyone. Each question he handled in the same way and the Professor usually gave up after about three. The result was that he obtained as good marks as I could and no one suspected that his answers were based on my five- or six-minute résumé. Moreover he never forgot what I told him and never failed in an examination.

Numerous anecdotes could be told of the customs then in vogue, such as the stag dance, the cane rush, and the annual class football rush. However, probably the most interesting background anecdote of all has to do with how the *Stein Song* came to be written. Hovey had graduated from college and was in Paris, I believe, when the Psi U Society planned to hold a convention in some western city to which Psi U representatives from various colleges were invited. They asked him to give the oration, which was quite an honor since he had only been out of college a very few years. He accepted and came first as far as New York where he looked up some of his Psi U classmates. They were happy to see him and a group of them arranged a dinner to his liking, including beer, which he enjoyed. After talking over old times, they asked him whether he had written his speech for the convention. He replied, "No I have not, but I have been giving it some thought. There are, however, one or two things that trouble me a bit. In the first place I do not have a proper suit for the event and in the second place I do not have money enough to get there." They laughed and told him that the money would be no problem but possibly the suit might be. One of them stood up and told him to try on his coat. It fitted quite well so he was told it was the same fit as a tuxedo which he could have. "Well," said Dick, "Those two things being settled I guess I will go to my room and write the speech." He was then asked what he planned to write about. He replied he thought he would make the first part about life in college. For the second part of the oration he would present his idea of the effect college should have on life afterwards. "Then," said Hovey, "I think I will write a poem to connect these two parts." So he spent most of



1902. "I entered the auto age with the purchase of a Stanley Steamer. This car steered with a tiller, and had a sort of rumble seat where people could sit below but in front of the driver."



1887. "The Harvard Medical School, as I remember it, on Boylston St."



1939. "I was chief medical director of the John Hancock Company, Boston."

the night writing the oration and read it to them on the next day. It was a beautiful oration and quite naturally they then asked him about the connecting poem. "No," said Dick, "I haven't thought about it yet, but I will write it on the train." When he finally relaxed on the train he began to relive the pleasant evening. He began to think again of the warm friendships, the good dinner, the steins on the table, the reminiscences and the wonderfully helpful spirit they had all shown him. Presently then, he wrote, "For it's always fair weather when good fellows get together with a stein on the table and a good song ringing clear."

At this point a few words about eating clubs. There were several, and in 1883 the price of board was \$3.50 a week. Junior year I had board at the Crosby Club. Mrs. Dixi Crosby gave meals to about twelve students and did most of the cooking, although she must have been 60 or more years old. Her husband was the surgeon Dixi Crosby, who had charge of the hospital in Washington where many Union soldiers were treated. Mrs. Crosby was a fine looking woman, resembling in a marked degree the portraits of Martha Washington, even to the treatment of her hair. She was a scholarly woman and spent her evenings reading the latest novels. Mrs. Crosby had been with her husband at the hospital. President Lincoln called every day when in Washington to see the sick and wounded. She said he appeared very sad often times after visiting these soldiers. When he finished his calls he usually sat down and talked with Mrs. Crosby. She told me that he not infrequently discussed family matters. He did not criticize Mrs. Lincoln, yet Mrs. Crosby felt that he did not rely on her judgment, and for that reason often asked how she would act in certain situations, particularly with reference to the children.

In 1884, my junior year, the college was small, consisting of about 250 students in the regular or classical department. Then every student knew every other student, and often there were strong friendships. Graduation seemed surprisingly near and a question very often discussed was what to do after graduation? To go into business, law, or medicine did not seem as attractive then as it did later. We rather thought we would pursue the classics or the modern languages by becoming teachers and then, later, perhaps professors or possibly authors. Personally, I hoped to teach the modern languages and pictured to myself the delights of reading the masterpieces in French and German, of vacations and sabbatical years traveling abroad, and of finally becoming a professor.

As I look back over my college life, senior year, I think, was in a way not as pleasant as any one of the previous years. This was natural, primarily because the small classes resulted in strong attachments, and the thought of separation had now become both truly painful and quite imminent. Two honors came to me unsolicited senior year, which I recall with much pleasure. I was elected president of the class and in my fraternity was presiding officer one term. The studies were similar

to those of junior year. During junior year I had formed the habit of reading late into the night too often and I continued to do so senior year. As a result, in May, I had a breakdown. I had just completed the college course and a little later was awarded a commencement part and elected to Phi Beta Kappa. My commencement part was a debate with the poet Richard Hovey. Unfortunately I was unable to take the stage or to take my examination for honors in German and French. I did succeed, however, in securing the highest mark in German in the history of the college up to then. I was helped in this by a German in the class, Plapp, who gave me lessons in conversational German and in reading without translation. Naturally commencement was a great disappointment to me. Later, as I still was unable to work, I could not accept a position teaching in a private school in Poughkeepsie.

Subsequently I decided to study medicine, but was not well enough to enter the Harvard Medical School until late in 1886. As I had been studying outside, this late start did not handicap me. The subjects were anatomy, physiology and chemistry. While recuperating in Alfred, I had worked on physiology and anatomy, reciting to Dr. Smith, who also discussed some of his cases with me and allowed me to observe minor operations. In chemistry I was assisted by Dr. Reeves '88, particularly with the laboratory work I had missed.

During my years at the Medical School, I found my thorough grounding in the classics, which was usual in the curriculum of that day, particularly valuable. Also, throughout these years I took practically all the lectures verbatim in shorthand, and this proved a tremendous help to me. Professor Henry Bowditch gave the lectures on physiology, and as it happened, the examination in this course came on July 17, in 1887. On this Bunker Hill Day, the southern regiment of Civil War veterans was in Charlestown and had joined the northern veterans in celebrating the day. As I roomed in Charlestown at the time, I found the crowds so great that it proved both slow and difficult to cross the bridge into Boston to reach the Medical School building. After a vacation in Maine, I returned next fall to study pathology under Professor Reginald Fitz, auscultation and percussion by Dr. G. M. Garland, and medical chemistry with Professor E. A. Wood. We attended clinics at the Massachusetts Hospital, and as time permitted, I also took lectures on theory and practice given by Professor Francis Minot to the senior class. I spent the month of July at the Massachusetts Hospital taking a special course under Dr. George Garland who had the department of diseases of women. He took only two students, Deal '89 being the other. It was very instructive. We did not see diseases of the skin, but we had an opportunity to examine the heart and lungs often, and we saw many cases which later were seen by a gynecologist. During that summer I also made a compendium of the lectures on theory and practice which I had taken ahead of time.

The last year was very interesting. We, of course,

had theory and practice, but as I already had these verbatim, I only attended when a new subject was announced. Clinical medicine was very important under Professor F. C. Shattuck. Naturally, he showed patients illustrating the usual things we would expect to treat, and he gave short lectures. We also had lectures on other subjects without examination. In surgery we had lectures by several professors, but the principal lectures were given by Professor David Cheever. Later I transcribed my notebook and Dr. Cheever had it printed. My final mark here was 86, the highest in the class, although there were several who were giving their attention to surgery and who later made good as surgeons. As I have said, I attribute this mostly to having taken all these lectures verbatim, so that it was then relatively easy to review them carefully. In clinical medicine I had a 97, but the mark which understandably pleased me most was 100 in Theory and Practice. The next best mark here was 90 which went to Thayer, who later became professor of medicine at Johns Hopkins.

In 1889 I also took shorthand notes of the ceremonies marking the transfer of Dr. Oliver Wendell Holmes' books to the Boston Medical Library. At that time a letter was read from Dr. Holmes to Dr. Hodges, then President of the Library, which referred to this transfer and his desire to keep these books together. This letter was given to me, but last year, in my 99th year, I felt it had assumed historic importance and therefore presented it to the Boston Medical Library. Shortly after 1889, my shorthand again proved valuable when I worked with Professor Reginald H. Fitz, under whom I had taken pathology, in the preparation of a medical textbook which was of particular interest because it presented a substantial advance in the treatment of appendicitis, Dr. Fitz being one of the pioneers in appendectomy.

I received my degree in June 1889 and that fall opened an office at Hancock Street on Beacon Hill in Boston. However, shortly thereafter my father asked me to go to Washington, D. C., to act temporarily as a secretary to Mr. Thomas B. Reed, Speaker of the U. S. House of Representatives. Largely because of the keen wit and extraordinary ability of Mr. Reed, this brief interlude produced many happy memories for me. My father likewise had an active career in Congress, serving ably for twelve years in the U. S. House of Representatives as a representative from Maine and often working closely with Mr. Reed. While in Washington, I took part in the ceremonies in commemoration of the one hundredth anniversary of the inauguration of George Washington, an impressive event which brought together the most representative group that had ever convened in the United States up to that time. Returning to Boston, I applied myself to the development of my practice, and at first I also did some work for the local medical societies. Shortly thereafter I began to make examinations for the John Hancock Mutual Life Insurance Company, and it was fortunate that I had these several sources of income, as the depression of 1893 was for a time quite severe.

In 1896 I was married to Linda Whitin Forbush, a very happy marriage for us both until her death in 1938. The next year we began housekeeping at my present address 37 Hancock Street. With its marble front and circular staircase, it has been listed as of historic value to the Beacon Hill area and is now over 100 years old.

From 1890 on I gradually became more actively associated with the John Hancock Company. When I started, they rented one floor of a building at the corner of Boylston and Washington Streets and there was one stenographer and less than 100 employees. In fact, the company was so small that a few years before serious consideration had been given to liquidation or merger. What a far cry from the present handsome 26-story building with its computers and thousands of employees! This growth was in large measure due to the constructive policies followed by the company, but I like to think that this was made possible in turn by the sound policies of the medical department. I was with the company forty-nine years and was appointed assistant medical director in 1917. From 1923 until my retirement in April 1939, I was chief medical director.

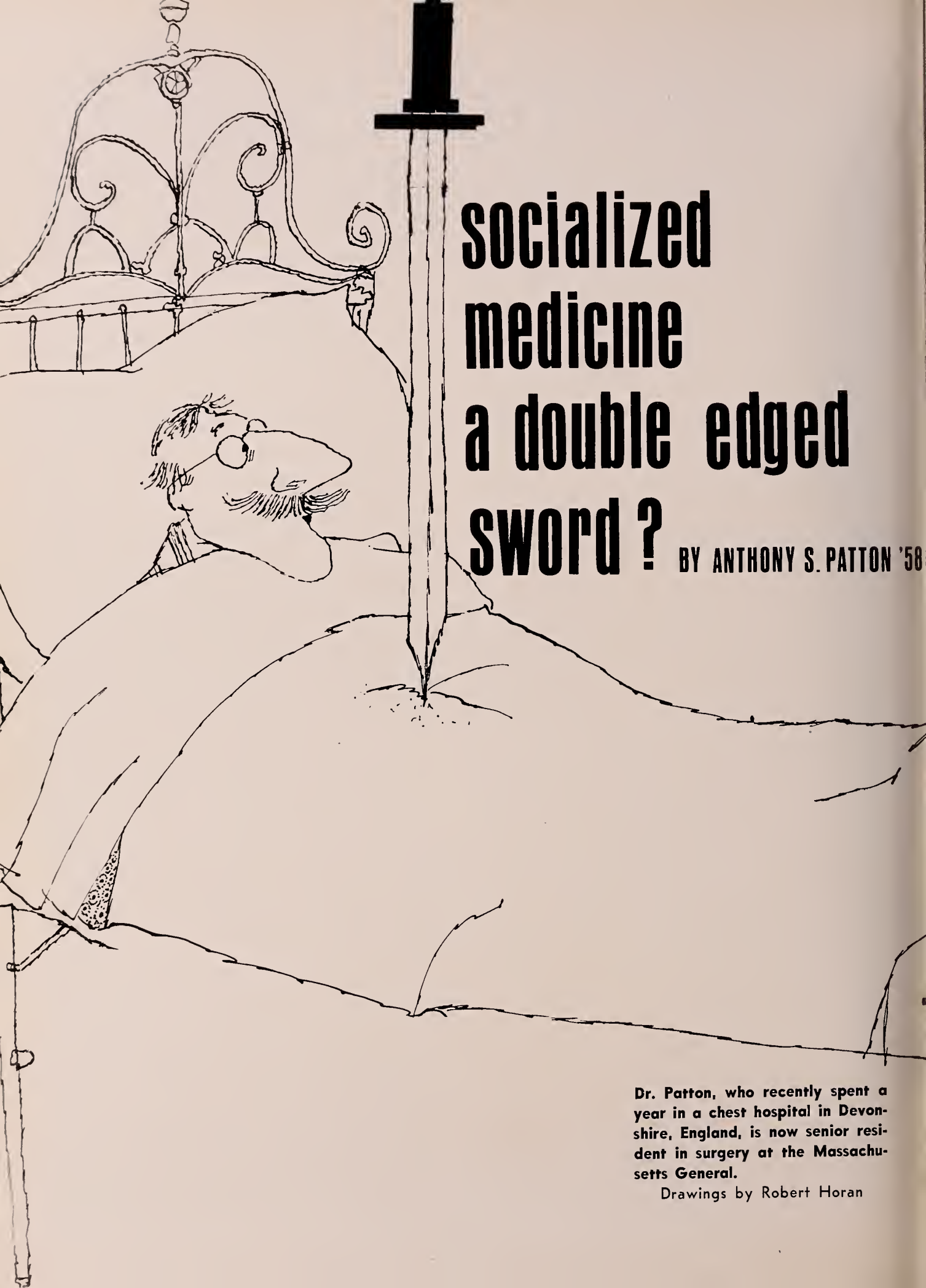
While I have no formula for long life other than the basic admonition of making sure you pick out the right ancestors, I have always been a strong believer in regular but gentle daily exercise. I used to walk a good deal, but this changed somewhat when I entered the auto age with the purchase of a Stanley Steamer in 1902. This car steered with a tiller and had a sort of front rumble seat where people could sit below but in front of the driver.

I have one son, Nathaniel D. W., who was born in 1903, and when he was a baby, his mother and I frequently took him out in this car. If we were out when feeding time came, I simply turned a valve in the front of the car and heated his formula in the resulting jet of steam. He graduated from Harvard in 1925 and is now an officer in The First National Bank of Boston.

For my general health I took up golf about middle age and enjoyed it so much that my wife used to jokingly suggest I ought, perhaps, to drop it for my health. Many pleasant games ensued at The Country Club with numerous friends and with my son who similarly enjoys the game. I continued to find this very beneficial exercise until I reached the age of eighty.

From then on I made a point of daily walks while in Boston, even in somewhat stormy weather, and in the summer time at the family home in Whitinsville, Mass.. I was quite active outdoors. This lovely old Victorian home is now about 90 years old. It has beautiful and extensive grounds and includes a large barn which still houses some 16 carriages which had been used by various generations of my wife's family.

Understandably, in the last five years I have been less active, but in season I continue to go to Linwood Grove in Whitinsville where I am frequently outdoors. I still watch television each day and have no restrictions on what I eat. I continue to enjoy what has been for me a long and full and what I hope is a worthwhile life.



socialized medicine a double edged sword ?

BY ANTHONY S. PATTON '58

Dr. Patton, who recently spent a year in a chest hospital in Devonshire, England, is now senior resident in surgery at the Massachusetts General.

Drawings by Robert Horan

It is 16 years since the National Health Service came into being in England. Although most agree that the service is popular and permanent, English doctors are still divided in their reaction to it. Is it the best method of giving maximum patient care, more research opportunities and enough quality hospitalization to patients? Or is it the best that can be expected, considering its organizational setup? Is medical care better now than in pre-National Health Service days? Is it a system everyone, everywhere would benefit from? Some weaknesses are visible to all English doctors, and others are striking only to outside observers.

During my year at a rural hospital in "glorious Devon" in southwest England, I was able to absorb and sample the *modus operandi* of the NHS from the vantage of an interested observer.

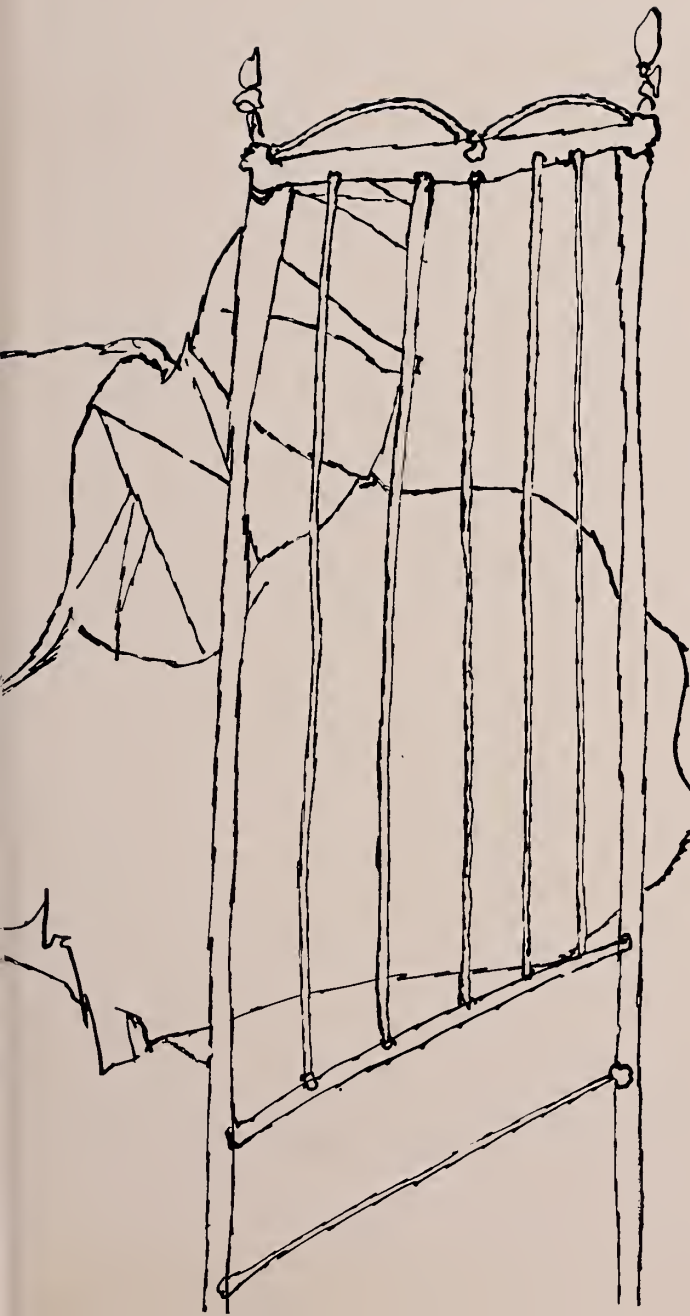
Before I left for England, my training was strictly "egghead" and my orientation liberal. I attended both Harvard University and Harvard Medical School. I am proud to say I voted for the late president and that I thought (and still do think) that much of the American Medical Association's approach to the problems of the distribution and cost of medical care has been antediluvian. At one time I supported the idea of financing medical care for the aged through social security. I thought that the problems of distribution and quality of medical care were paramount.

Most important, I had thought that although free economy medicine was fine for the doctors, it was very questionable whether the people were getting equivalent benefit. There was and is the need in America for doctors to take the lead in advancing some new legislation for providing better solutions to some of the problems currently apparent in our medical practice. Now, having worked under the system of socialized medicine, I take a new approach to many of these issues.

In the area where I went I both lived and worked under the auspices of the National Health Service. I have been told that Devon, Cornwall, and Somerset, i.e. the southwest, represent the worst of the National Health setup, but I heard the same complaint from doctors in other areas of England. One year's experience in one county does not qualify me to judge the overall system; I cannot speak beyond my own knowledge and experience. I should like to think of this as a statement of what has happened, can happen, under a nationalized health service.

English people, of all classes, are very satisfied with the National Health Service. Although it seemed to me that most of those who used private care did so primarily for status reasons, it is obvious that private facilities, at least in my region of the country, are almost without exception inferior to those provided by the government at the present time.

Devon is far from the lights of London and the sensitivity of the governmental offices. It is a rural area whose main city, Exeter, has a population of 110,000. It



has an excellent university but its hospital is not yet a true teaching hospital. There is no medical school and only a fair medical library. The hospital where I worked, approximately 14 miles from Exeter, is a 200-bed chest hospital on the edge of the mysterious and beautiful Dartmoor. Built originally as a T.B. sanatorium, it is now equipped to deal with surgical problems as completely as with medical problems involving the chest. When it was built, there was a supervisory committee of local people who sponsored it in much the same way as do the trustees of our private non-profit hospitals. The responsibility, both administratively and medically, lay largely with its superintendent, who exercised a measure of freedom unthinkable in England today. In 1948 when the National Health Service was inaugurated, many of his functions were taken over by the new hospital secretary, a civil servant who had to approve any expenditure made for the hospital by any member of its staff. He was employed by the Exeter Special Hospital Management Committee, an offshoot of the Exeter Mid-Devon Hospital Management Committee which in turn was responsible to the Southwest Regional Board. The end of the line lay in Whitehall, British governmental headquarters and seat of the National Health Service.

I am sure part of my disappointment with the NHS stems from the American tradition of good private medical care. We have money and resources to carry out our medical ideals in practice and there are a variety of ways in which these ideals may be implemented. We are used to private care by private doctors; this is certainly a popular American phenomenon. Articles appear in the American medical magazines about the lack of enough ward beds to support teaching services. With the tremendous increase in the use of the insurance plans, fewer and fewer patients need to be "on the ward," but under the NHS, no such problem could ever exist, for all its beds are ward beds. To the average British patient, however, this lack of private care is of little concern, primarily because he has known nothing else for at least 15 years. Certainly good ward care is better than no care or poor private care, and given the differences in the standards of living, ward care in the area where I was located was as good as American ward care in our top grade hospitals.

This equalization of medical facilities is a strong factor in the increasing trend toward more democratic thinking in Britain. Nevertheless, as long as there are any private services available, the use of them will be considered a status symbol.

It is difficult to understand why people would prefer private care, if the private hospitals I saw were any indication of the general standard. One such hospital near Exeter was built in the last century as the grand country estate of a lord. It rises up out of the flat, surrounding farmland like a decayed, Georgian version of Tara, in "Gone with the Wind." The stucco is discolored and falling away; from the outside one would think the building deserted. The downstairs is composed of large,

spacious drawing rooms which have been converted without too much success to fill the needs of a hospital. Paint is peeling, molding and cornices are disintegrating, busts of the 13 hydrocephalic children of Queen Anne — in an advanced state of decay — gaze down from the walls of the room where the Trustees meet under a no-longer-blue sky, and the mirrors are losing their gilt. The medical facilities are even more appalling. In this hospital, as in a large majority of private hospitals, or "nursing homes," as the British prefer to call them, there is no intern or resident coverage. The consultants who do the cases frequently spend the night in a spare bed to make sure their patients get good post-operative care. After one pneumonectomy at which I assisted, I was called upon to help carry the patient up the long central stairway in the main hall to a cold, drafty room with no oxygen outlet, inadequate suction and minimal nursing care. While one marvels at why anyone would deliberately choose this setting for medical or surgical treatment, one must also bear in mind that the patient is paying double, for he has already paid taxes for the National Health Service.

One of my greatest disappointments lay with the system of doctor distribution. This is one factor in American medicine that has bothered many both within and without the profession. Despite group practice and the large number of specialists, American doctors still tend to concentrate in the big cities and the wealthier areas. I had expected and hoped that the British system would have solved this problem, particularly of specialist care for rural areas. Unfortunately, it is their failure to do so which struck me most forcibly. Since nearly all doctors are now part of the Health Service, there is complete state control of the distribution of jobs and specialties. Despite this, there is a serious lack of certain specialties in the rural areas. In the county of Devon, with a population of about 1 million, there are only 9 general surgeons. All major hospitals have waiting lists, sometimes with as many as 1500 people waiting for surgery. In north Devon, a patient may have to wait three years for a hemorrhoid operation and two to three years for a routine hernia operation.

In addition to the unfortunate results of this shortage of specialists, there are other aspects which are significant. The specialists in practice were excellent, but they had no time or authority to participate in the specialty clinics which most of our hospitals in both community and teaching situations now have. In the area where I worked I could find no tumor clinic, cardiac clinic, or hypertension clinic. In the United States these clinics have the double advantage of providing multiple consultant care for the patient as well as the exchange of ideas between consultants of different training and background.

A more serious consequence of this lack of specialist jobs has been the migration of many doctors from England to other parts of the world. It is ironic that because "native sons" have become discouraged from starting up the long road to the position of consultant, the Health



Service is now beginning to find itself short of British doctors to fill senior registrar posts, and are looking abroad to America for qualified people.

One of the problems seems to be the slow way in which the NHS creates new positions. There are plenty of men to fill the positions; there is hardly a consultant's job advertised that does not have 30 or 40 applicants, particularly in the fields of general surgery, thoracic surgery and medicine. Men spend many years in training to be consultants (i.e. specialists — the highest professional position in the NHS), then find they are blocked in the position of junior or senior registrar by having to wait for the consultant in the area to die, or a new post to be created — either alternative may be a matter of many years. There is no escaping this waiting game unless they decide to return to general practice, and even then they must go to a position vacated by another doctor. There is no such thing as choosing a location, then setting up in practice; one must find a niche within the structure and with the approval of the National Health Service. In this situation, both the general practitioner and the junior consultants become frustrated and leave England.

It may be that the Health Service administration does the best it can with the money available to it. The allocation of funds among competing demands cannot

be fairly judged unless the facts are known, but the appropriation of money on the local level leads one to hope that the men in Whitehall are using a slightly more comprehensible yardstick to measure relative values than the one which appears to be in use in the Southwest.

To an American doctor, the most curious characteristic of the National Health Service is that it is run on an administrative level by so-called lay committees (meaning the members thereof are not required to know anything about medicine). Qualifications for appointment to these committees are shrouded in mystery, but one suspects that the appointing person or agency chooses from among the well-known, well-meaning citizens of the community, i.e. the Establishment. A good portion are public-spirited retired career officers in the Army and Navy. There is in England an acknowledged group of "professional" committee members, very often women, who turn up on one committee after another; one local lady was known to serve on over 30 different boards. This may or may not attest to her charitable inclinations, but it certainly raises some speculation as to how much effective help can be rendered to each group by one with so many irons in the fire.

The British love to discuss things even if the discussion accomplishes nothing, and the committee system bears this out. There are committees for every conceivable



able situation. I have outlined earlier the hierarchy of the medical committee system in the area where I worked, and the reader can see that there must exist a corresponding hierarchy of civil servants, clerks and secretaries completely apart from the medical side of care. These civil servants are allegedly under the control of the lay committees, but often the situation is reversed, or there is a power struggle between the two — which occasionally takes the form of a rivalry to abdicate responsibility for an unpleasant decision. The committee system thus leads to some of the most elaborate buck passing that I have ever seen. It is frequently impossible to find out who is responsible for a particular decision, and any decision that is at all controversial may be passed from committee to secretary to committee, until it is finally a dead issue.

To return to the specific problems of the here and now — as I see it, this lack of decision-making on the committee level and in the committee system leads to several great evils. One is that the hospital administrator can come to no decision about day by day matters. Another is that the committee often does not respond quickly to new medical ideas. It took my chief approximately 8 years to obtain a heart lung machine. A physiologist-physician in the hospital has wasted valuable time in building most of his own equipment because of frustration with the committee and its lack of understanding of what he was trying to do. There is no one who has been given the power or authority or the ability to find new methods of patient care. While the British outpatient clinics are run well and efficiently, there is really no one who is thinking about the position and location

of the medical facilities in relation to the medical demand. Simple decisions on the handling of patients or the redesign of entrances would increase the efficiency of medical care tremendously, but such decisions appear to fall between the provinces of the several committees, administrators, and secretaries — and consequently are never made. As a result the British do not understand such places as the Lahey Clinic or the Mayo Clinic, which are essentially different forms of medical distribution and organization brought about by the initiative of individuals. There could be no such thing as an NHS group practice in England where both consultant and general practitioners operate under the same roof. There could be no Rip Van Winkle Clinic, or Miner's Clinic, or Palo Alto Clinic in the National Health Service, and there never will be, as long as initiative and efficiency are bottled up in this incredible system of committees. The constant sense of frustration in "getting things done" has brought about poor hospital morale. It is becoming increasingly difficult to hire efficient, well-qualified personnel who are personally involved with the hospital and its welfare; the turnover is high; "hospital politics," complaints, back-biting are rampant. Enthusiasm and team spirit no longer exist, and there is a deep schism between the administrative and medical staffs. Since the community as a whole no longer directly participates in the finance or operation of the hospital, it too adopts the now famous British attitude of "I'm Alright Jack" — in other words, let someone else worry about it.

It appears that the shortage of specialists working under too much pressure with many needs unmet is, to

some extent, artificially imposed by the NHS. Perhaps this is because they find it impossible to predict medical needs, or there is a shortage of funds, or the allocation of funds is being poorly judged. This problem of distribution has not been solved in American medicine either, but here, at least, there is no third party arbitrarily suppressing an otherwise adequate supply from meeting a real social demand.

Probably, the general practitioner's position in the NHS is directly related to the problem of number and distribution of specialists. He is the basic element of the whole medical structure in England. No patient may see a consultant except on referral from his general practitioner; he carries a greater load both numerically and in terms of responsibility than his colleague in the United States. It is unfair to compare incomes because standards of living are quite different in the two countries; the general practitioner rarely earns over \$6000 per year. Doctors are paid per head of patient, so that the ambitious but not overly conscientious doctor may add far more patients to his list than he can adequately care for, while the very careful doctor with only a few patients (perhaps old and/or very sick and needing careful attention) may be left very much out of the financial picture.

The "G.P." suffers not only with respect to income. In most areas, he cannot bring his own patient into any hospital larger than the very small local "cottage hospital," little more than a nursing home, and certainly never into the large community or district hospital of the area. When a patient requires hospitalization, he must be turned over to a consultant and the resident staff of the hospital and will not see his own doctor professionally until his discharge. Thus he may get expert care, but he will surely miss the support and the assurance of the doctor who knows him best, and his doctor suffers by being professionally isolated from the main and modern stream of thinking being done by the hospital staff. The general practitioner has no direct access to the consultant except through the mail. There are no informal coffees, staff meetings, grand rounds open to community doctors, lunches or chats where specialists and general practitioners can exchange ideas. Thus there is no free flow of new information to the periphery, and hospital doctors find themselves repeating the same new idea several times over to many general practitioners about many different patients through the mail. This is, of course, a factor which seldom comes to the attention of Whitehall in the form of statistics or finance. The patients themselves will never know to what degree their own general practitioner is misinformed or out of date, and since they cannot visit a consultant except through the G.P., they have no real recourse (aside from starting over with a new G.P.), even if they do suspect a hiatus in the stream of information. Thus it is entirely on the conscience of the general practitioner to continue his medical education after graduation.

Despite the innumerable faults of the National Health Service, it has been responsible for some great advances. There is a superb organization for the pre- and post-natal care of both mothers and babies. Despite the recent British woman's desire to behave like her soft American sisters and deliver in hospitals, the midwifery setup has been excellent and has greatly lowered the maternal and infant mortality rates. There have been some hospitals who have benefited tremendously by the influx of government money, particularly in the poorer areas of the country. Some specialties, such as psychiatry, seem to have had excellent support from the government, and much money has been spent in the modernization of the mental hospitals. Most of the profit motive, good or bad, has been removed from medicine. (This is, of course, a double-edged sword, for the patient now has no legitimate demand to ask for a particular specialist in time of crisis or death, and the doctor no motive beyond his medical conscience to impel the specialist to come in from his warm fire to hold the hand of a dying patient's relative.)

Most important, however, is that the mass of people like their National Health Service, and they feel they are getting superior care to what was available before the government organized medicine. There is lip service given to the cost of socialized medicine to the taxpayer, but for practical purposes, most people consider it free care. It will undoubtedly never be replaced. People on the whole feel friendly to their doctors; there is very little of the "you work for me now, Doctor" attitude.

While most people will admit there are problems with the National Health Service, particularly in the frustrations of waiting lists, the benefits seem to overshadow them. The British system of health care is a political fact of life. It is their complacency with all the inefficiencies and inequities for the doctor which impressed me most. It is that utter acceptance by the British public which makes me fear greatly for our free economy system in the U.S.A. Somehow if we do not face up to the responsibilities of the heavy cost of insurance, particularly for the aged, the relatively high infant mortality rate, the mediocre or poor standards of some of our hospitals, and the poor distribution of medical care in some areas of the country, we will fall prey to the same socialism in medicine, which to my mind provides no answers but only creates new questions.

The primary problem that has been solved in England is the satisfaction of political public opinion. It is this we must try to satisfy here in the United States in ways which will truly further the advancement of medical care for all the people. Only if the medical profession takes the lead in proposing suitable legislation toward solving the problems which do exist for us (not by denying or obscuring them) can we hope to maintain the freedom in which the very best medical practice can flourish.



And for Every Nation

IMAGINE, if you will, the rise and fall of a great empire, and with it, the rise and fall of a great medical tradition. The *Koran* said:

And for every nation there is an appointed time, so when their appointed time is come, they shall not remain behind the least while, nor shall they go before.

.....عكس الطب والعلم الإسلامي
 أمشقة الشمس الدغري بقبلة عند
 أنقضاء أدبرها، وسطها كقمر ضيئين
 أشد اللبالي ظلاماً في العصور الوسطى
 الدوروية. ٤

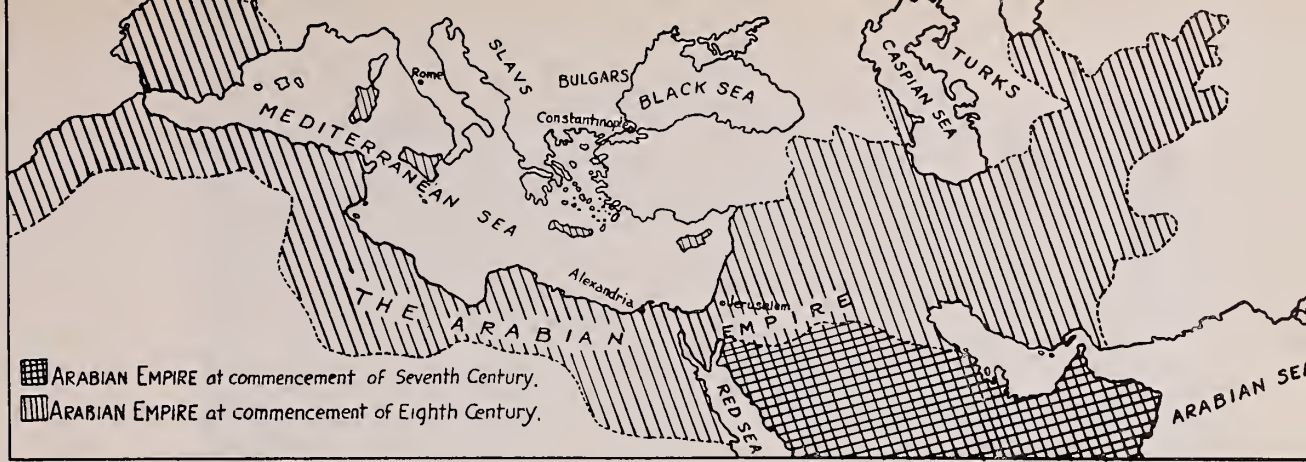
"... Islamic medicine and science reflected the light of the Hellenic sun, when its day had fled, and ... they shone like a moon, illuminating the darkest night of the European Middle Ages."
 (Meyerhof)

Islam's "appointed time" was some thousand years ago, and just as the Moslem empire is but a memory, so has the great medical tradition which this empire fostered been forgotten. Yet during the eighth through the 12th centuries, Arabian medicine was the best in the world, and it provided an important link between the medicine of Greece and Rome and that of the Renaissance.

Today we frequently associate the term "Arab" with the Bedouin, who has been made famous by 'Lawrence of Arabia.' Not only is the Arab more than this, but "Arabian medicine" refers to all work in the field done in Arabic, and at the time of Islam, this most flexible and poetic language bound together Christians, Jews, Moslems, and Zoroastrians of many nationalities. Nor were these societies of the desert; while Charlemagne and his lord were struggling to write their names, the opulent Persian court was sponsoring hundreds of scholars in the study of Aristotle.

The role of Arabian medicine in medical history is by

The author, Cyrus C. Hopkins '64, presented this article, in longer form, to the Boylston Society last fall. A graduate of the University of Michigan, Mr. Hopkins will take his internship at the Massachusetts General Hospital.



There is an Appointed Time

by Cyrus C. Hopkins '64

no means settled. Some maintain that it contributed little to the rebirth of the science in Western Europe, and that with the fall of Rome and the decline of classical institutions of learning, ancient medical knowledge was conserved through monastic medicine alone.

Others feel that Greek science and philosophy travelled east when Rome fell, first to Persia, where it was translated into Arabic, and later throughout both branches of the Arab empire, the eastern and western caliphates. First transported in the fifth century by the heretical, exiled Nestorians, and by the Athenian scholars whose schools had been shut down by Justinian in the 600's, this learning was later compiled and extensively organized by Arab scholars. Their texts, which served for centuries as the sole source of Greek medical learning, were re-translated into Latin by western scholars in the 14th century. Keeping this "unbroken chain" theory in view, the reader may find the following comments on some of the more illustrious Arabian scholars more meaningful.

Not until the sudden rise of Islam did Arabian medicine really move forward. Under the rule of Muhammed and the four caliphs who followed him, Islam swept out of its limited desert origin around Medina and Mecca across the entire Mediterranean from 622 to 732.

A passage in LeClerc (translated by Osler) describes this development vividly:

The world has but once witnessed so marvellous a spectacle as that presented by the Arabs in the ninth century. This pastoral people, whose fanaticism had suddenly made them masters of half of the world, having once founded their empire, immediately set themselves to acquire that knowledge of the sciences which alone was lacking to their greatness. Of all the invaders who competed for the last remains of the Roman empire, they alone pursued such studies; while the Germanic hordes, glorifying in their brutality and ignorance, took a thou-

sand years to re-unite the broken chain of tradition, the Arabs accomplished this in less than a century. They provoked the competition of the conquered Christians — a healthy competition which secured the harmony of the races.

At the end of the eighth century, their whole scientific possessions consisted of a translation of one medical treatise and some books on alchemy. Before the ninth century had run to its close, the Arabs were in possession of all the science of the Greeks; they had produced from their own ranks students of the first order, and had raised among their initiators men who, without them, would have been groping in the dark; and they showed from this time an aptitude for the exact sciences, which was lacking in their instructors, whom they henceforward surpassed.

The first job of this new, culturally acquisitive civilization, then, was to assimilate the ancient knowledge, and a number of schools for translating the ancients into Arabic sprang up in the eighth and ninth centuries. Some of these were established by the Caliph himself, as was the famous "House of Wisdom" which began in 830 in Baghdad.

Far from mere scribes, these translators were often court physicians as well, and among the most distinguished men of the time. An example of their wit and wisdom is the remark of Yuhanna ibn Masawayh (a translator who is more often remembered for his pupil, Hunayn ibn Ishaq) to one of the court detractors:

If the folly wherewith thou art afflicted were converted into intelligence and divided amongst a hundred beetles, each would then become more intelligent than Aristotle.

Hunayn, his student, was the most impressive man of this period of translation, and has been described by the Arab scholar, Philip K. Hitti, as "one of the greatest scholars and noblest characters of the age (ninth cen-



The Persian Rhazes, shown here at the bedside of a measles-afflicted child, was the first to describe this disease, smallpox, and hayfever; observe and describe pupillary reaction to light; and write a book on pediatrics. Although a rich man, his sympathy with suffering was so great that he died in poverty.

ture).“ Early in his career he gave up medicine in order to study Greek, having encountered a provincialism which afflicted medical centers even at that time:

These people of Jundi-Shapur used to believe that they only were worthy of this science, and would not suffer it to go forth from themselves, their children, and their kin.

Eventually returning to his profession, he gradually rose to the rank of physician to the Caliph himself, while simultaneously engaging in a most impressive work of translation. Helped by his son and nephew, he translated the bulk of the Greek medical texts, which amounted to over 200 works, including Hippocrates, Dioscorides, all of Galen, and many others. By this feat he not only preserved seven otherwise irretrievable books of Galen, but, more immediately important, he created many Arabic technical terms that were used for the next 500 years. Somehow, he also found time to write the first Arabic text of ophthalmology.

As for the character of this man, it is best illustrated by the following incident: for steadfastly refusing to concoct a poison for one of the Caliph's enemies, the Caliph imprisoned him for a year and threatened him with death, to no avail. Finally acknowledging defeat, the Caliph asked him what kept him from giving in. Hunayn replied, two things:

My religion and my profession. My religion decrees that we should do good even to our enemies, how much more to our friends. And my profession is instituted for the benefit of humanity and limited to their relief and cure.

AFTER the work of Hunayn and other translators original Arabian medicine began to flower. Four great names appear under the eastern caliphate, and it is significant that all four were Persian by nationality. The first, al-Tabari, distinguished himself by writing the first known compendium of medicine, the *Paradise of Wisdom*, in the mid-ninth century. This work, while totally unoriginal, demonstrated that the Arabs were now applying the Greek and Hindu knowledge they had learned.

Of greater interest, however, is his student, Rhazes (841-926). Rhazes began in philosophy and music, but apparently he became discouraged, for Browne says that:

He did not fathom metaphysics, nor apprehend its ultimate aim, so that his judgement was troubled and he adopted indefensible views, espoused objectionable doctrines, and criticized people whom he did not understand, and whose methods he did not follow.

Although he did not turn to medicine until he was nearly 40, one scholar has called him “the greatest and most original of all the Muslim physicians, and one of the most prolific as an author.” His most important contributions were *The Comprehensive Book*, an “encyclopedia summary” of Greek, Persian and Hindu medicine, and his *Treatise on Smallpox and Measles*, the first example of really original observation in Arabian medicine. Despite his present wide acclaim as the first to discuss smallpox as a separate entity, he himself said:

Avicenna, whose range of intellectual skills made him seem to stand for his entire age, discussed mineral, animal and vegetable poisons, rabies, venesection, cancer of the breast, hydrocele, tumors, skin diseases, and labor in his *Canon*, and his medical views are now considered clairvoyant.



Any physician who claims that the good Galen did not mention smallpox and that he was unaware of it is undoubtedly mistaken. Such a person probably has either not read Galen's work at all, or if he has read it, his reading was very careless.

Nor did he restrict his imagination to his literary works; when he was asked to help select a site for a new hospital in Baghdad, he hung up pieces of meat in different parts of the city and chose the location where signs of decomposition were slowest to appear. As illustrated by a number of personal anecdotes, he also employed psychological as well as physiological principles in

Hunayn's diagrams in his *Ten Treatises on the Eye*, *i. e.*, its layers, and *r.*, its muscles, are two of the earliest.



his treatments. In the cure of one Amir with a mysterious joint disease, he showered his patient with taunts and threats, until finally the nearly immobile Amir forgot his disease and leapt up in rage. Rhazes, having anticipated this result, had taken precautions for a speedy escape, sending back a letter of apology which concluded with:

I deliberately provoked you in order to increase the natural caloric, which thus gained sufficient strength to dissolve the already softened humors. But henceforth it is inexpedient that we should meet.

The Amir not only forgave him, but richly rewarded him.

The third physician, Haly Abbas, contributed a work that he modestly entitled *The Royal Book, A Noble Thesaurus Comprehending the Science and Practice of Medicine*. In spite of its name, this book became distinguished primarily for its brevity and was studied widely until Avicenna's work replaced it. It also included the first rudimentary conception of the capillary bed in medical history.

THE most colorful man of his time, however, was undoubtedly Avicenna, "the prince of physicians," or "the second teacher" (Aristotle being the first). Although probably not as great a doctor as Rhazes, Avicenna, who lived from 980 to 1037, is celebrated for the amazing scope of his brilliant mind, which mastered such varied fields as poetry, philosophy, medicine, and geology.

His life, which was far from a scholarly seclusion, reads more like fiction than biography. Garrison calls him

a convivial Omarian spirit, eminently successful in practice as court physician and vizier to different caliphs, (he) was one who trod the primrose path at ease and died in the prime of life from the effect of its pleasures.

He is said to have mastered the *Koran* and Arabic literature by the age of 10, turned successively to jurisprudence, philosophy, natural science, logic, geometry and astronomy, until at 16 he settled on medicine, "which he did not find difficult to master." All this ability was coupled with a prodigious energy.

He was dominated by an insatiable thirst for knowledge. 'At home of nights,' he relates, 'by lamplight, I read and I wrote, and when I grew so sleepy that I found my powers of work were failing me, I drank a glass of wine to restore my energies, and resumed my labors. When at length I fell asleep, I was still so full of my studies, that often on waking I found that problems which had perplexed me had been solved during slumber.'

It is this type of admission, however, that made his detractors charge that he was constructing fictional rationalizations for his too-copious use of wine, a beverage, which, strictly speaking, should have been prohibited by his religion.

More celebrated as a philosopher and Talmudist, Maimonides did leave works on Hippocrates' Aphorisms and dietetics that demonstrate his wide medical knowledge.



At the age of 18, he was summoned to attend the ruler. At that time, however, such favors were far from offers of security, for in ensuing years he was almost kidnapped, his patrons were murdered, and much of his time was spent in endless wanderings. He finally rose to Prime Minister, only to be overthrown by a rebellious army, which promptly reinstated him when his Amir had a recurrence of colic. He spent the remainder of his daily life as prime minister, filling his nights with "writing, group discussions, and the pleasures of wine, women and music."

He began his writings at the tender age of 21, and in the next 37 years he authored 68 books on theology and metaphysics, 11 on astronomy and natural philosophy, 16 on medicine, and four in verse. His definitive medical work, the *Canon*, has become justly famous, since, as Hitti has remarked,

it placed the sum total of Greek wisdom, codified by his own ingenuity, at the disposal of the educated Moslem world in an intelligible form.

Also called "a medical bible for a longer period than any other work" by Osler, the *Canon* was translated into Latin in the twelfth century. Its continued popularity is demonstrated by the fact that between 1470 and 1500 alone, 350 years after his death, it passed through one Hebrew and 15 Latin editions.

There are several historians, however, who question how much it has ultimately contributed to scientific knowledge. Garrison calls it a "huge, unwieldy storehouse of learning," remarking that:

upon the whole, the influence of the *Canon* upon medieval medicine was bad, in that it confirmed physicians in the pernicious idea that ratiocination is better than firsthand investigation.

Even in the 13th century, Arnold of Villanova contemptuously describes Avicenna as

a professional scribbler who had stupified European physicians by his misinterpretations of Galen.

Two other men in the eastern caliphate have left their marks on medical history. One, Alhazen, was a contemporary of Avicenna. His first known service was to the Caliph in Cairo, who ordered him to discover a way of regulating the yearly flooding of the Nile. Failing to do this, he feigned madness to protect himself until the Caliph died, at which time he emerged to write his famous works in optics. This book established the Arabs' high reputation in this field, for it demonstrated many of the basic principles of light and optics, came close to the principle of magnifying lenses, and may even have influenced Leonardo and Kepler.

The other was ibn-Nafis, who refuted the old Galenical doctrine that the interventricular septum was permeable, and described the pulmonary circulation several hundred years before Servetus is said to have "discovered" it.

Philosophy, rather than medicine, was considered the flower of the western mind. Ironically, this is primarily due to the work of Moslem scholar-physicians such as Maimonides, who were "spreading themselves over several branches of knowledge." Because of these men, Hitti considers "the twelfth . . . the greatest century in the history of philosophic thought in Moslem Spain."

Among those who did significant medical work was Abulcasis, who in the 1000's was the first to write on surgery. He authored a little manual called *An Aid To Him Who is Not Equal to the Large Treatises*. Avenzoar (1113-62) made several original observations and fathered a medical dynasty that produced six generations of physicians. His contemporary, Averroes, a physician whose commentaries on Aristotle dominated European schools of philosophy to the end of the 16th century, called Avenzoar "the greatest physician since Galen."

FOR the most part, however, Arabian Medicine of the 12th Century had lost much of its vigor, in the west as well as the east caliphates. Singer states:

Anatomy and physiology perished. Prognosis was reduced to an absurd rule of thumb. Botany became a drug list. Superstitious practices crept in, and medicine deteriorated into a collection of formulae, punctuated by incantations. The scientific stream, which is its life blood, was dried up at its source.

"The stream," it seemed, had begun to flow back into western Europe. The Salerno medical school was founded in 1075 by Constantine the African, who began translating the vast bulk of Arab literature back into Latin. Toledo's famous Gerard of Cremona followed example, and Sicily, under the Normans, became still another center for this invaluable work. Later, translated Arab thought began taking root in Bologna, Padua, Naples, Montpellier, Paris, and Oxford.

Gradually, academic attention shifted from the Arab transmitters to the Greek originators, and finally the work of Copernicus and Vesalius proved to Europe that their own scientific renaissance had begun. Only then did these scholars begin urging their students to abandon Avicenna and Galen and return to the observation of nature.

In conclusion, I quote from the famous Arabist, Max Meyerhof:



Averroes, the "Prince of Philosophers," held that man could know the essence of things by reason alone, a doctrine which was banned by both Christians and Moslems.

Looking back, we may say that Islamic medicine and science reflected the light of the Hellenic sun, when its day had fled, and that they shone like a moon, illuminating the darkest night of the European Middle Ages; that some bright stars lent their own light, and that moon and stars alike faded at the dawn of a new day — the Renaissance. Since they had their share in the direction and introduction of that great movement, it may reasonably be claimed that they are with us yet.

REFERENCES

- Browne, E. G. *Arabian Medicine*. (Cambridge: Cambridge University Press), 1921.
- Garrison, F. H. *History of Medicine*. (Philadelphia: W. B. Saunders), 4th ed., 1929.
- Hitti, Philip K. *History of the Arab*. (London: Macmillan), 1953.
- Koran*, Chap. VII, 32, cited by Sa'di.
- LeClerc, Lucien. *Histoire de la Médecine Arabe*. (Paris: Leroux), 1876.
- Meyerhof, Max, "Science and Medicine," *The Legacy of Islam*, ed. by Sir Thomas Arnold and A. Guillaume (Oxford), 1949.
- Osler, Sir William. *The Evolution of Modern Medicine*. (New Haven: Yale University Press), 1921.
- Sa'di, Lutfi M., "Glimpses into the History of Arabic Medicine," *Bulletin of the Medical Library Association*, 46:206-18, 1958.
- Singer, Charles J. *A Short History of Medicine*. (New York: Oxford University Press), 1928.



HARVARD MEDICAL SCHOOL

Internship Appointments Class of 1964

Unless otherwise noted all internships start July 1, 1964 for one year.

<i>Name</i>	<i>Hospital (and location*)</i>	<i>Service</i>
Aldredge, Horatio R., 3d	Massachusetts Memorial Hospitals, Boston	Medicine
Anderson, Kathryn D.	Children's Hospital Medical Center, Boston	Pediatrics
Ashby, Thomas M.	Genesee Hospital, Rochester, N.Y.	Medicine
Bache, Robert J.	University of Minnesota Hospitals, Minneapolis, Minn.	Medicine
Bartlett, Donald, Jr.	Strong Memorial Hospital, Rochester, N.Y.	Medicine
Bennett, Terry M.	Los Angeles County General Hospital, Los Angeles, Calif.	Medicine
Bernard, Roger P.	Strong Memorial Hospital, Rochester, N.Y.	Surgery
Block, Peter C.	Massachusetts General Hospital, Boston	Medicine
Bookwalter, John R.	Boston City Hospital (Harvard Service), Boston	Surgery
Bradford, Michael J.	Bellevue Hospital (Cornell Service), New York, N.Y.	Medicine
Brown, Borden	Mount Auburn Hospital, Cambridge	Mixed
Burns, Arlen B.	University of Oregon Medical School Hospitals and Clinics, Portland, Oregon	Rotating
Buttenwieser, Paul A.	Bronx Municipal Hospital Center, New York, N.Y.	Pediatrics
Byar, David P.	Colorado General Hospital, Denver, Colo.	Surgery
Cantril, Simeon T.	University of Oregon Medical School Hospitals and Clinics, Portland Oregon	Rotating
Carpenter, David O.	Harvard Medical School	Neuro-physiology
Chapin, David S.	Massachusetts General Hospital, Boston	Surgery
Chapman, Paul H.	Massachusetts General Hospital, Boston	Surgery
Chase, Lewis R.	Bronx Municipal Hospital Center, New York, N.Y.	Medicine
Chylack, Leo T., Jr.	Boston City Hospital (Harvard Service), Boston	Medicine
Cooper, Joel D.	Massachusetts General Hospital, Boston	Surgery
Corlette, Marvin B., Jr.	University of California Hospital, Los Angeles, Calif.	Surgery
Cox, William V., 2d	Albany Medical Center Hospital, Albany, N.Y.	Surgery
Cranton, Elmer M.	U.S. Naval Hospital, Pensacola, Fla.	Rotating
Crystal, Raymond F.	Medical College of Virginia Hospital Division, Richmond, Va.	Surgery
Dean, Andrew G.	King County Hospital, Seattle, Wash.	Rotating
Dorsey, Joseph L.	Peter Bent Brigham Hospital, Boston	Medicine

<i>Name</i>	<i>Hospital (and location*)</i>	<i>Service</i>
Eaton, S. Boyd, Jr.	Peter Bent Brigham Hospital, Boston	Medicine
Ehrlich, Ira B.	University of California Hospital, Los Angeles, Calif.	Medicine
Ettinger, Bruce	Boston City Hospital (Harvard Service), Boston	Medicine
Falk, George A.	University of Minnesota Hospitals, Minneapolis, Minn.	Medicine
Flickinger, Charles J.	Colorado General Hospital, Denver, Colo.	Surgery
Frederick, Elizabeth W.	Massachusetts General Hospital, Boston	Medicine
Fung, Christopher H. K.	Beth Israel Hospital, Boston	Pathology
Galdabini, James J.	University Hospitals of Cleveland, Cleveland, Ohio	Medicine
Ghez De Castelnuovo, Claude, P. J.	Cleveland Metropolitan General Hospital, Cleveland, Ohio	Medicine
Givelber, Harry M.	University Hospitals of Cleveland, Cleveland, Ohio	Pathology
Glickman, Robert M.	Boston City Hospital (Harvard Service), Boston	Medicine
Guggenheim, Mary Ann S.	Cleveland Metropolitan General Hospital, Cleveland, Ohio	Pediatrics
Guggenheim, Stephen J.	Cleveland Metropolitan General Hospital, Cleveland, Ohio	Medicine
Hartmann, Lawrence M.	Bronx Municipal Hospital Center, New York, N.Y.	Pediatrics
Havens, David W.	Mount Auburn Hospital, Cambridge	Mixed
Heisterkamp, David V.	Minneapolis General Hospital, Minneapolis, Minn.	Rotating
Himmelhoch, Jonathan M.	Jewish Hospital of St. Louis, St. Louis, Mo.	Medicine
Holloway, G. Allen, Jr.	Massachusetts General Hospital, Boston	Pathology
Hopkins, Cyrus C.	Massachusetts General Hospital, Boston	Medicine
Hopkins, Robert P.	Genesee Hospital, Rochester, N.Y.	Mixed
Hoyer, John R.	University of Minnesota Hospitals, Minneapolis, Minn.	Pediatrics
Hulley, Stephen B.	University of Minnesota Hospitals, Minneapolis, Minn.	Medicine
Hurd, Joseph K., Jr.	Boston City Hospital (Harvard Service) Boston	Surgery
Hutton, John J., Jr.	Massachusetts General Hospital, Boston	Medicine
Hyde, Ernest F., Jr.	Health Center Hospitals of the University of Pittsburgh School of Medicine, Pittsburgh, Pa.	Medicine
Irvine, Alexander R.	Strong Memorial Hospital, Rochester, N.Y.	Surgery
Irvine, Florence P. C.	Strong Memorial Hospital, Rochester, N.Y.	Medicine
Jackman, Jay M.	San Francisco General Hospital, San Francisco, Calif.	Rotating
Jackson, Stephen H.	Bellevue Hospital (New York University Service), New York, N.Y.	Medicine
Jolly, Margaret A. H.	Rhode Island Hospital, Providence, R.I.	Rotating
Kaltreider, Nancy B.	Beth Israel Hospital, Boston	Medicine



<i>Name</i>	<i>Hospital (and location*)</i>	<i>Service</i>
Kane, J. Gregory	Johns Hopkins Hospital, Baltimore, Md.	Surgery
Karchner, Adolf W.	Massachusetts General Hospital, Boston	Medicine
Keller, Albert R.	Massachusetts General Hospital, Boston	Pathology
Kim, Joseph C.	University of Illinois Research and Educational Hospitals, Chicago, Ill.	Rotating
Kirchman, Ernest H.	Pennsylvania Hospital, Philadelphia, Pa.	Rotating
Latt, Samuel A.	Peter Bent Brigham Hospital, Boston	Medicine
Lawrence, Robert S.	Massachusetts General Hospital, Boston	Medicine
Leff, Robert	Bellevue Hospital (Cornell Service), New York, N.Y.	Surgery
Leighton, Charles C.	University of Minnesota Hospitals, Minneapolis, Minn.	Medicine
Levin, Myron J.	Bronx Municipal Hospital Center, New York, N.Y.	Medicine
Lynch, Robert E.	Buffalo General Hospital, Buffalo, N.Y.	Medicine
MacGregor, Rob R., 3d	Boston City Hospital (Harvard Service), Boston	Medicine
Manchester, Gary H.	University of California Hospital, San Francisco.	Surgery
Mazer, Frederick L.	Cincinnati General Hospital, Cincinnati, Ohio	Medicine
McCarley, Robert W.	Peter Bent Brigham Hospital, Boston	Medicine
McIntosh, Edward N.	Buffalo General Hospital, Buffalo, N.Y.	Medicine
Miller, Bruce L.	Edward J. Meyer Memorial Hospital, Buffalo, N.Y.	Surgery
Mitchell, Donald W.	King County Hospital, Seattle, Wash.	Medicine
Mueller, John C.	University of Minnesota Hospitals, Minneapolis, Minn.	Medicine
Nieland, Michael L.	North Carolina Memorial Hospital, Chapel Hill, N.C.	Medicine
Northrup, Robert S.	Buffalo General Hospital, Buffalo, N.Y.	Medicine
Nuzum, Claude T.	University of Kentucky Medical Center, Lexington, Ky.	Medicine
O'Connor, Robert E.	North Carolina Memorial Hospital, Chapel Hill, N.C.	Medicine
O'Neil, William A.	Rhode Island Hospital, Providence, R.I.	Rotating
Ontjes, David A.	Boston City Hospital (Harvard Service), Boston	Medicine
Peter, Georges	Strong Memorial Hospital, Rochester, N.Y.	Mixed
Pfeffer, Robert I.	Peter Bent Brigham Hospital, Boston	Pathology
Pitt, Jane R.	Children's Hospital Medical Center, Boston	Pediatrics
Prouty, W. Robert	U.S. Naval Hospital, Bethesda, Md.	Rotating
Provisor, Arthur J.	University of Pennsylvania Hospital, Philadelphia, Pa.	Rotating
Purves, Dale	Massachusetts General Hospital, Boston	Surgery
Putnam, Samuel M.	King County Hospital, Seattle, Wash.	Rotating
Rapo, Seppo E.	Boston City Hospital (Harvard Service), Boston	Surgery
Rasminsky, Michael	Bronx Municipal Hospital Center, New York, N.Y.	Medicine
Raye, John R.	North Carolina Memorial Hospital, Chapel Hill, N.C.	Mixed
Ream, John R., Jr.	University of Virginia Hospital, Charlottesville, Va.	Surgery
Reynolds, Robert E.	Presbyterian-St. Luke's Hospital, Chicago, Ill.	Medicine
Rhoads, Jonathan E., Jr.	Cincinnati General Hospital, Cincinnati, Ohio	Rotating
Riddle, Matthew C., Jr.	Presbyterian-St. Luke's Hospital, Chicago, Ill.	Medicine
Rodarte, Joseph R.	Parkland Memorial Hospital, Dallas, Texas	Medicine
Rosefsky, Jonathan B.	Vanderbilt University Hospital, Nashville, Tenn.	Surgery
Rubenstein, Joel J.	Bellevue Hospital (Columbia Service), New York, N.Y.	Medicine
Sabin, James E.	University of California Hospital, Los Angeles, Calif.	Medicine
Sanders, Donald B.	University of Virginia Hospital, Charlottesville, Va.	Medicine
Sarósi, George A.	University of Minnesota Hospitals, Minneapolis, Minn.	Medicine
Schmidt, David D.	Buffalo General Hospital, Buffalo, N.Y.	Medicine
Schrag, Peter E.	Bellevue Hospital (Columbia Service), New York, N.Y.	Medicine
Schroeder, Steven A.	Boston City Hospital (Harvard Service), Boston	Medicine
Scott, Robert A. T.	University Hospitals of Cleveland, Cleveland, Ohio	Medicine
Seidman, Joel M.	Peter Bent Brigham Hospital, Boston	Medicine
Shackney, Stanley E.	Cincinnati General Hospital, Cincinnati, Ohio	Medicine
Shapiro, Arthur G.	Bellevue Hospital (Cornell Service), New York, N.Y.	Medicine
Sheehan, William C.	Colorado General Hospital, Denver, Colo.	Surgery
Skerker, Leonard B.	Presbyterian-St. Luke's Hospital, Chicago, Ill.	Medicine
Snyder, C. John	King County Hospital, Seattle, Wash.	Surgery



Steck, Theodore L.
 Steinberg, David
 Strathmann, William D.
 Swarr, James H.
 Tapper, Theodore S.
 Thach, William T., Jr.
 Thum, Charles W.
 Tudor, John M., Jr.
 Van Heeckeren, Daniel W.

Vernon, Thomas M., Jr.
 Volpe, Joseph J.
 Wallin, Victor W., Jr.
 Wattleworth, Anthony S.
 Weintraub, William H.
 Wiese, William H.
 Williams, Frank M.
 Witebsky, Frank G.
 Wolpow, Edward R.
 Young, Lowell S.-Y.
 Zacharia, Laurence A.
 Zimmerman, Phil G.
 Zipes, Douglas P.
 Zuerner, Richard T.

Beth Israel Hospital, Boston
 Beth Israel Hospital, Boston
 Buffalo General Hospital, Buffalo, N.Y.
 Roosevelt Hospital, New York, N.Y.
 North Carolina Memorial Hospital, Chapel Hill, N.C.
 Massachusetts General Hospital, Boston
 Boston City Hospital (Harvard Service), Boston
 King County Hospital, Seattle, Wash.
 Grace-New Haven Community Hospital, New Haven,
 Conn.

University Hospitals of Cleveland, Cleveland, Ohio
 Massachusetts General Hospital, Boston
 University Hospital, Ann Arbor, Mich.
 University Hospitals of Cleveland, Cleveland, Ohio
 University Hospitals, Columbus, Ohio
 Boston City Hospital (Harvard Service), Boston
 Boston City Hospital (Harvard Service), Boston
 North Carolina Memorial Hospital, Chapel Hill, N.C.
 Colorado General Hospital, Denver, Colo.
 Bellevue Hospital (Cornell Service), New York, N.Y.
 Buffalo General Hospital, Buffalo, N.Y.
 University Hospitals of Cleveland, Cleveland, Ohio
 Duke Hospital, Durham, N.C.
 Hartford Hospital, Hartford, Conn.

Medicine
 Medicine
 Medicine
 Mixed
 Mixed
 Medicine
 Surgery
 Rotating
 Surgery

Medicine
 Pediatrics
 Surgery
 Medicine
 Surgery
 Medicine
 Medicine
 Medicine
 Medicine
 Medicine
 Medicine
 Medicine
 Medicine
 Rotating

*Where the name of the state is omitted, the state is Massachusetts.



JAMES BOURNE

AYER

1882-1963



Dr. James B. Ayer, James Jackson Putnam Professor of Neurology, Emeritus, died on October 25, 1963, after a prolonged illness. His death brings to a close a long and illustrious career as a teacher, neurologist, and innovator of new ideas and techniques in medical neurology. Dr. Ayer received his M.D. from Harvard Medical School in 1907 and he became a member of its faculty in 1910. A year later, June, 1911, he was made an assistant physician to the out-patients with diseases of the nervous system at the Massachusetts General Hospital. When its formal neurology service was activated, he successively became assistant neurologist, neurologist, and finally, chief of the neurology service and the James Jack-

son Putnam Professor of Neurology. He succeeded Dr. E. Wyllys Taylor to both of these posts in 1926, upon the latter's retirement. Dr. Ayer remained in them until his retirement in 1946.

An entire generation of students at Harvard Medical School and at the Massachusetts General Hospital remember Dr. Ayer as a great teacher. Few men on the faculty could excel him in the lucid exposition and demonstration of neurological symptoms and signs. His ward rounds also provided ample scope for his clinical skill, and he likewise expected his students to develop an aptitude in conducting a neurological examination of symptoms and signs. Nothing would delight him more than the

presentation of some new clinical phenomenon at the bedside. He was truly a professor of clinical neurology.

Dr. James Ayer lived during a period when neurology was taking its rightful place as a division of medicine, and he had an active part in its development. Under his predecessors, James Jackson Putnam (1874-1906) and E. Wyllys Taylor (1906-1926), neurology was practiced by men who were both neurologists and psychiatrists. Often their patients had chronic diseases of the nervous system which bore little apparent relationship to the rest of medicine and surgery. Preparation for a career in neurology consisted of a period of training in an insane asylum, often followed by a period of study of the

anatomy and pathology of the brain and spinal cord in the same hospital. Such was the training of Dr. Ayer himself. In the general hospital, neurology was essentially in the out-patient service. Although Dr. Taylor saw the need of associating neurology more closely to medicine, and during his time, a neurology service was established with two beds assigned to it, it was Dr. James Ayer who finally succeeded in establishing a neurology ward and in drawing to his specialty men and women who were soundly grounded in internal medicine. In his presidential address to the American Neurological Association in 1931, he commented on the potential disadvantage of the great neurological institutes: "Being an integral part of a large general hospital with our patients contiguous to medical and surgical wards seems to me of such great importance that I should hesitate to enlarge our service if it entailed isolation." Perhaps James Ayer foresaw better than any of the other great figures in early 20th century American neurology that future advances in our understanding of the nervous system might come through any one of the medical sciences, and that disadvantages could accrue from excessive specialization.

It was in the creation of an active in-patient neurology service that Dr. Ayer's imagination and resourcefulness were most evident. Realizing that neurological diagnosis required the constant control afforded by thorough pathological study, he took steps to establish a neuropathology laboratory within the pathology and neurology services, and in 1927, invited Dr. Charles S. Kubik of the National Hospital in London to direct its activities.

To perpetuate the systematic study of altered nervous function, in 1937 Dr. Ayer found the means, partly from his own resources, of establishing the first laboratory for electroencephalography in a general hospital, with Dr. Robert S. Schwab, a former resident on his service, as its director. He also recognized the

need of accurate assessment of speech and psychological function and founded the Language Clinic and the Cortical Testing Laboratory under the direction of Dr. Edwin M. Cole. Finally, in order to improve the quality of physical medicine and rehabilitation, both of which are so important for patients with disabilities resulting from diseases of the nervous system, he played an active part in organizing a new department of physical medicine in 1939, under still another of his residents, Dr. Arthur L. Watkins. These new laboratories facilitated the study of neurological patients and set the high standards of neurological diagnosis now achieved at the Massachusetts General Hospital. And, of course, these services were available to the neurosurgical and psychiatric services which developed under Dr. Ayer's gentle but consistent encouragement and support, as well to all other services at the Hospital.

In the finest academic tradition, Dr. Ayer continually explored important neurological problems in the laboratory. During his long career at the Massachusetts General, he established a number of laboratories and encouraged young men to work in them. One of these was the spinal fluid laboratory. The cerebrospinal fluid had held a particular fascination for him from the time he worked with professor E. E. Southard after graduating from Medical School, and during the years of the First World War, when he joined Lewis Weed in investigating the pathogenesis of meningitis. Upon his return to Massachusetts General after the War, he established the laboratory and continued his studies. About this time he and his associates developed the occipito-atlantoid puncture for obtaining spinal fluid in animals. Later he was to apply the same procedure to man, and in fact, he was the first to perform the cisternal puncture in man (1920). With W. Denis, Dr. Ayer also developed a reliable precipitation test (Denis-Ayer sulfo-salicylic test) for the measurement of total protein in the spinal fluid; he

then proceeded to establish normal standards and deviations therefrom for all the known diseases of the nervous system. Dissatisfied with the awkward mercury manometer for measuring cerebrospinal fluid pressure and dynamics, he invented the sterilizable water manometer now in use throughout the world. His studies of the cerebrospinal fluid dynamics with jugular compression resulted in the Tobey-Ayer test for lateral sinus thrombosis. The great mass of data accumulated in the spinal fluid laboratory was never published by Dr. Ayer, but, with characteristic generosity, he permitted much of it to be incorporated in the book *The Cerebrospinal Fluid*, by F. Fremont-Smith and H. Houston Merritt, W. B. Saunders Co., 1937, to which he wrote a foreword.

Dr. Ayer carried out all of these studies and organizations despite the demands of a heavy clinical practice and an active teaching program. And with this heavy professional burden, he still was able to find time for his family and to pursue his interests in tennis, sailing, gardening and wood-cutting, in all of which he excelled. Many of his former students and colleagues have warm memories of the congenial hospitality of the Ayer home in Milton. It was open to all, and one could be sure of finding there interesting conversation, a lively game of tennis, a tramp through the woods of Blue Hills, or a stint on one end of a cross-cut saw.

Upon his retirement, Dr. Ayer retained an active interest in the affairs of the Massachusetts General Hospital and Harvard Medical School, in both of which he took a great pride. A visit from one of his friends or colleagues was always a source of delight both to him and Mrs. Ayer. All those who had the privilege of knowing him and working with him realize to what extent our hospital, our school, and in fact all of neurological medicine are indebted to him.

RAYMOND D. ADAMS
Bullard Professor of Neuropathology
Chief of Neurology Service and
Neuropathologist, MGH

HONORS

Donald R. Chadwick '49, chief of the Public Health Service's Division of Radiological Health in Washington, D.C., is one of ten outstanding young men in the U.S. Government in administrative and scientific fields to receive the Arthur S. Fleming Award. He was cited for "outstanding executive ability and performance throughout his entire Public Health Service career."

Dr. Chadwick's appointment as chief in 1961 followed shortly after the resumption of atmospheric nuclear testing on a massive scale by the USSR, and later by the United States. His citation points out that: "grave national policy issues and decisions for this country were complicated by an extraordinary degree of public anxiety and controversy over the necessity for nuclear testing, the effects of radioactive fallout, and the responsibilities of various Federal and State governmental agencies. Proper fulfillment of responsibilities by the Division in the face of these problems required a degree of administrative courage, skill and diplomacy by Dr. Chadwick which has received widespread recognition among his professional associates and colleagues both in and out of Government."

J. Englebert Dunphy '33, president of the American College of Surgeons, has recently been appointed chairman of the department of surgery at the University of California Medical Center (S. F.). The last four years, Dr. Dunphy has been chair-

man of the department of surgery at the University of Oregon Medical School. For twenty years before that he was a familiar figure in Boston medicine, as professor of surgery at the Medical School, director of the Fifth Harvard Surgical Service, Boston City Hospital, and director of the Sears Surgical Laboratory.

A great many physicians from HMS and its affiliated hospitals attended the 13th annual convention of the American College of Cardiology held in New Orleans last February. **Dwight E. Harken '36** clinical professor of surgery and surgeon, Peter Bent Brigham Hospital, became the new president of the ACC. His work in heart surgery began in the 1940's when he "— discovered that the heart wasn't such a mysterious and untouchable thing after all. We could enter it, do things to it, and get out again if we just followed the rules of the game."

The cardiology society honored **Samuel A. Levine '14**, and **Paul D. White '11**, respectively clinical professor of medicine, emeritus, and honorary physician of the MGH. Dr. Levine, who gave the convocation lecture, received a gold medal. Dr. White was presented with an honorary fellowship.

The John and Mary R. Markle Foundation of New York has announced the appointment of twenty-five young faculty members as Markle Scholars in Academic Medicine. Among the recipients is **John B. Josimovich '57**, teaching fellow in obstetrics and gynecology at the Medical School and the Boston Lying-in Hospital. He has become the eighth Markle Scholar on the staff of the Medical School, and the other HMS graduate who received a scholarship was **William L. Green '54**, assistant professor at Seton Hall College of Medicine and Dentistry, Jersey City.

The appointments raise the number of Markle Scholars to 380 in 84 medical schools, and the total grants for this program to over \$11 million. The grants were first made in 1948 to relieve the faculty shortage in medical schools by giving support to young teachers and investigators early in their careers. Each appointment provides a \$30,000 grant to the medical school where the scholar will teach and do research, paid to him at the rate of \$6,000 a year "to assist in his development as teacher, investigator and administrator."

Recognition and reward has also come to **Dr. Josimovich** from a different quarter. At the annual meeting of the American Association of Obstetrics and Gynecology, he was awarded the 1963 Foundation Prize of \$500 for his essay on the

discovery of a new hormone, "Human Placental Lactogen." The prize was given for the best essay on original research to be submitted by a resident.

During the last two years the medical world has been aware of the brilliant research done by **Herbert E. Kaufman '56**, chief of the division of ophthalmology, University of Florida College of Medicine. Recognition for his work in finding the first successful cure of viral infection in man, and his use of IDU for the treatment of herpes simplex keratitis has brought him many medical awards and honors. Included among them are the Boylston Prize of the New England Medical Society, the Holmes Award of the Chicago Institute of Medicine, and the A. O. Bernstein Award. Now recognition comes from a different quarter. In February the Junior Chamber of Commerce named him one of Florida's Five Outstanding Young Men. Not only Dr. Kaufman's research but also his work as director, organizer, and surgeon in the North Florida Eye Bank for Restoring Sight was cited. During the last year, the Eye Bank has provided enough tissue for 80 cornea transplants, many of which were performed by Dr. Kaufman. Dr. Kaufman is a native of New York City; he graduated from Princeton University and HMS and did postgraduate work here and at the NIH. He moved to Florida two years ago, with his wife and two children.

A special study of infectious and immunological diseases in man is under way at the new research center at Johns Hopkins Hospital. **Donald N. Medearis, Jr., '53**, has been chosen as co-director for this project, which is being supported by a grant from the National Institute of Allergy and Infectious Diseases. One of the long-term objectives of the project is a new method of cataloguing essential clinical and laboratory data on patients under study. The information will be recorded and stored on electronic data processing equipment for easy retrieval and analysis. Dr. Medearis is assistant professor of pediatrics and microbiology at Johns Hopkins Hospital.

In February, **George F. Wilkins '32** received the American Academy of Occupational Medicine Award of Honor. It was presented to him at the Academy's annual dinner held in Hartford, Conn., for his outstanding contributions to the field of occupational medicine. Dr. Wilkins is associate clinical professor of occupational medicine at the Harvard School of Public Health and medical director of the New England Telephone Company.



Dr. Dunphy

